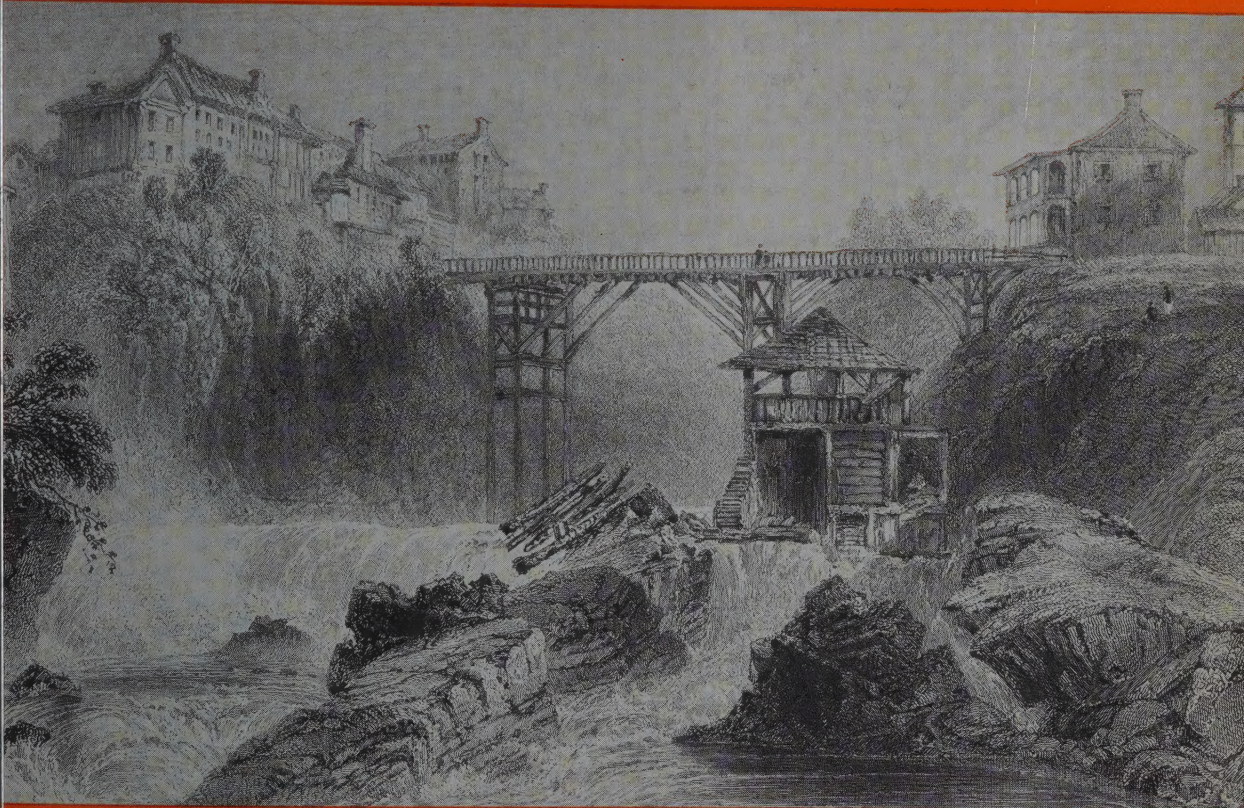
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take
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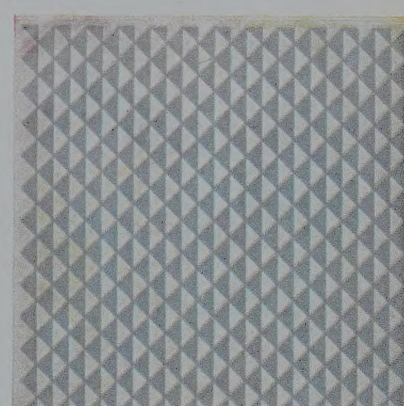




PILKINGTON'S TILES



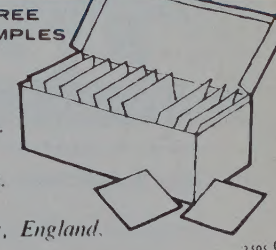
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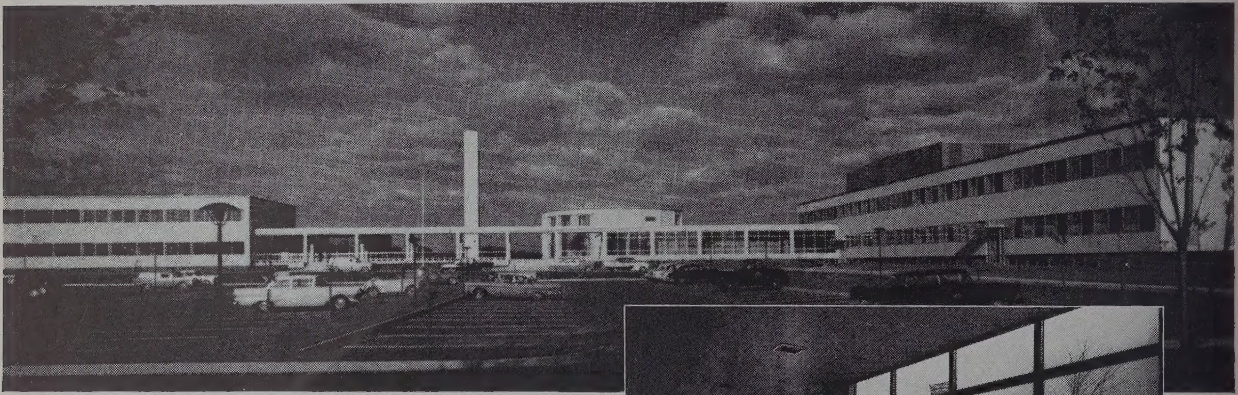
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TWINDOW keeps heating and air-conditioning costs low at the new Etobicoke Municipal Centre

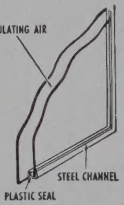


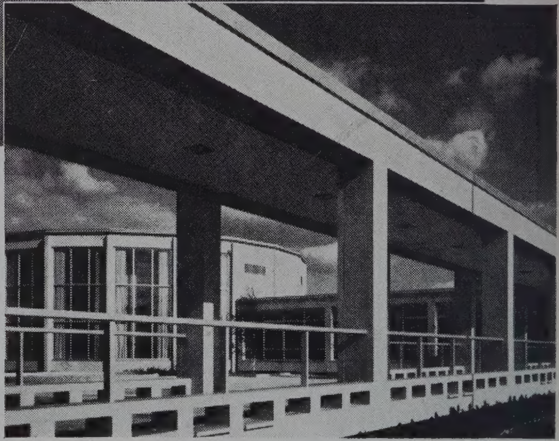


ARCHITECTS: *Shore and Moffat, Toronto*
GENERAL CONTRACTOR: *Dell Construction Co. Ltd.*
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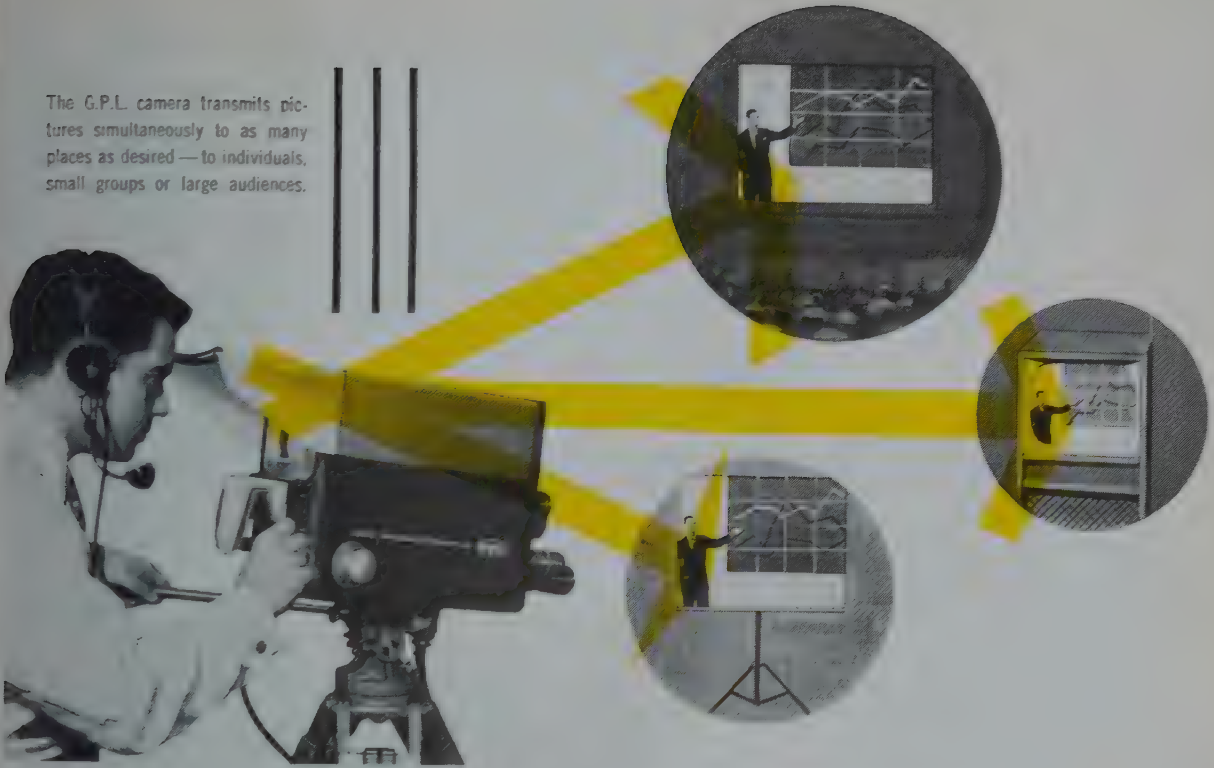
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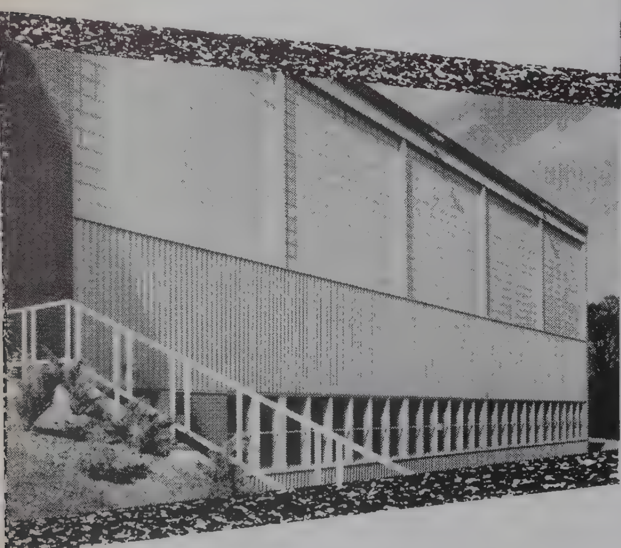
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Architect—Robert D. Schoales, London Board of Education

Contractor—Foundation Company of Canada Limited

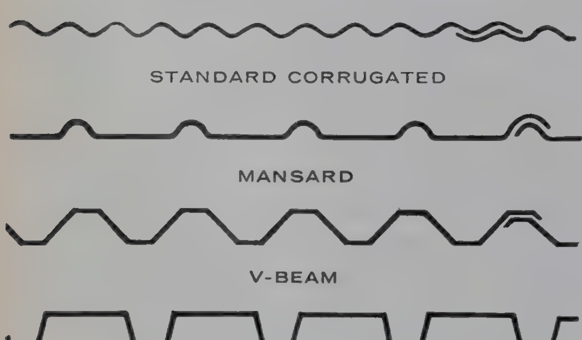
WHEABLE COLLEGIATE, LONDON, ONTARIO, where the Architect Robert D. Schoales has effectively employed Gray V-Beam Colour Galbestos siding as a spandrel around the entire school. Quickly and easily installed by experienced erection forces.





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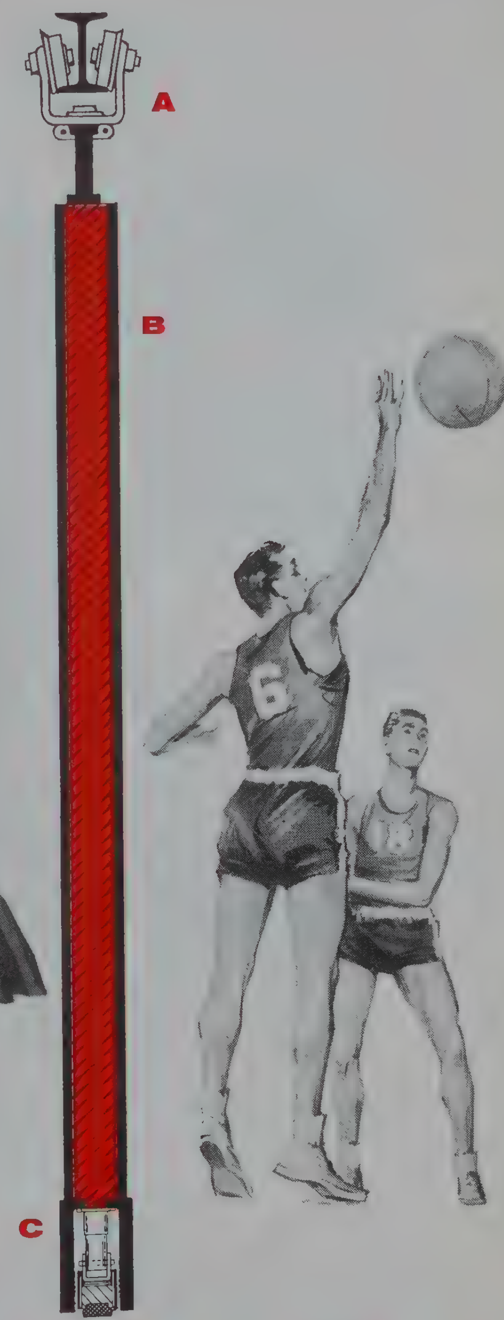
Convenience Is Only The Beginning

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B Structurally proven Brunswick hardboard honeycomb 'AeroCore' panelling (cells of resin-impregnated paper) provides maximum stability, extra sound insulation, and is warpage-free even under extreme conditions.

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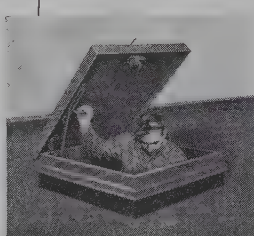
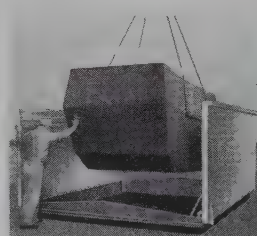
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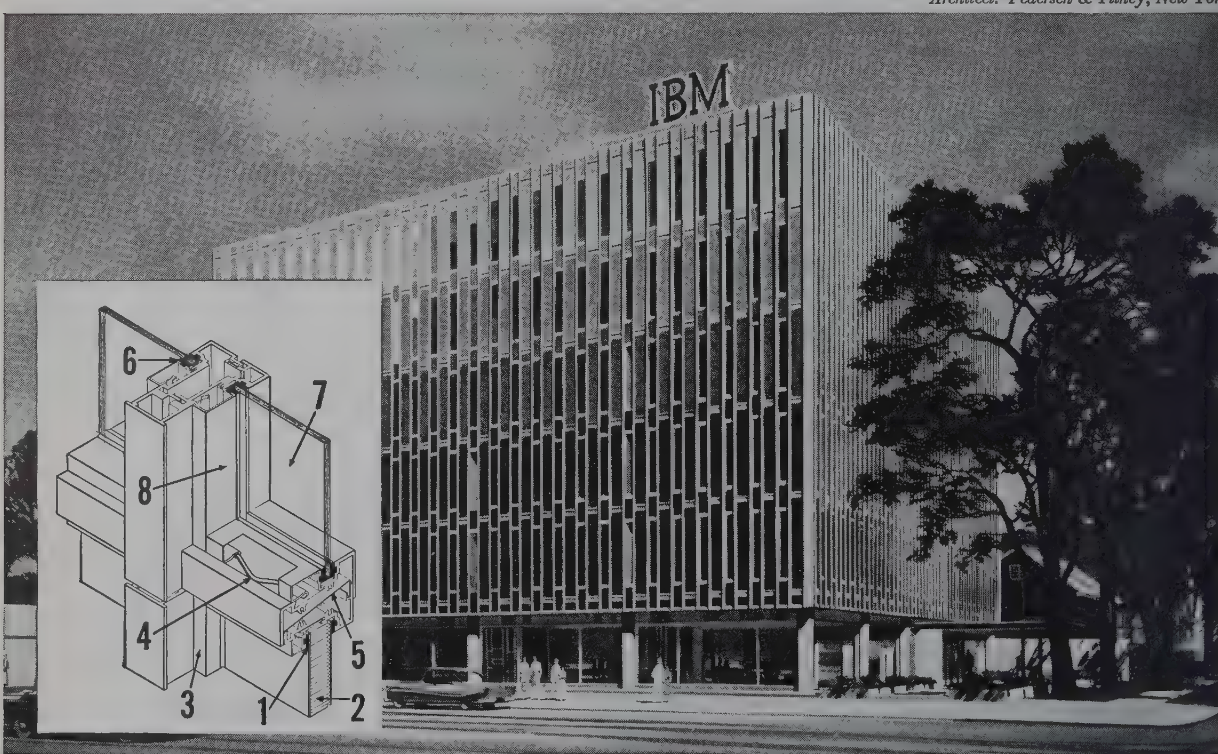
Neoprene's weatherability has been proven for over 20 years in many installations throughout industry. Life predictions for properly designed, quality neoprene gaskets are up to 50 years, if not longer.

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† Name on request

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Architect: Pedersen & Tilney, New York



Get more facts about Du Pont synthetic rubber products — write for your regular copy of "Elastomers Notebook".

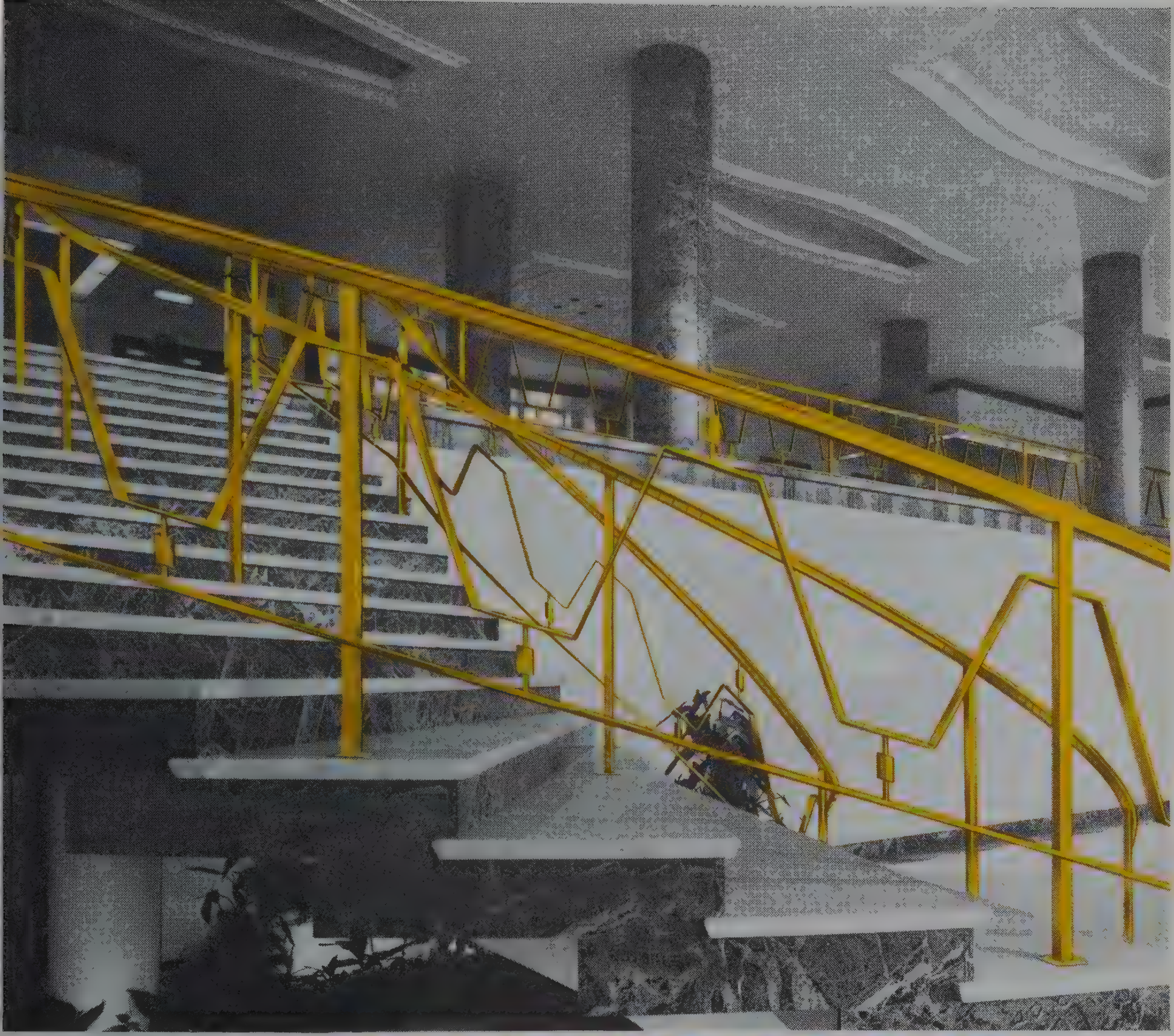
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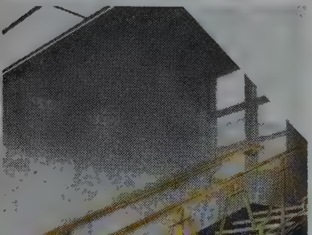
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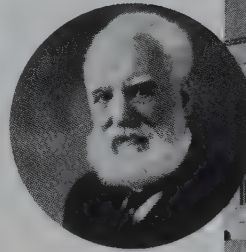
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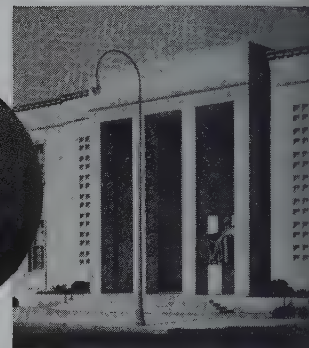
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The Bell



MONTREAL, 620 Belmont Street Building
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Engineer: McDOUGALL & FRIEDMAN
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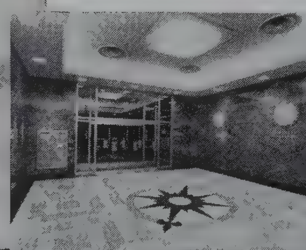


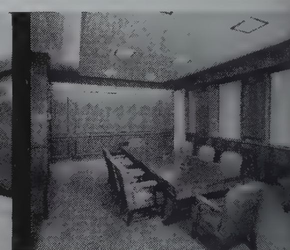


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TORONTO, 393 University Avenue Building
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Engineer: KAREL RYBKA & ASSOCIATES LTD.
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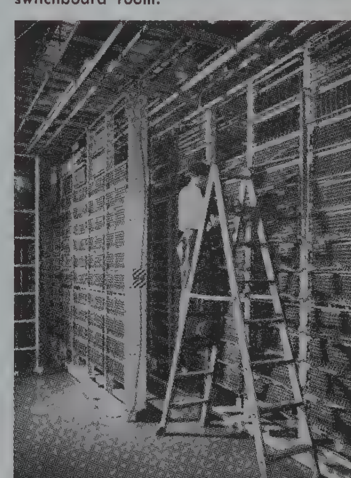
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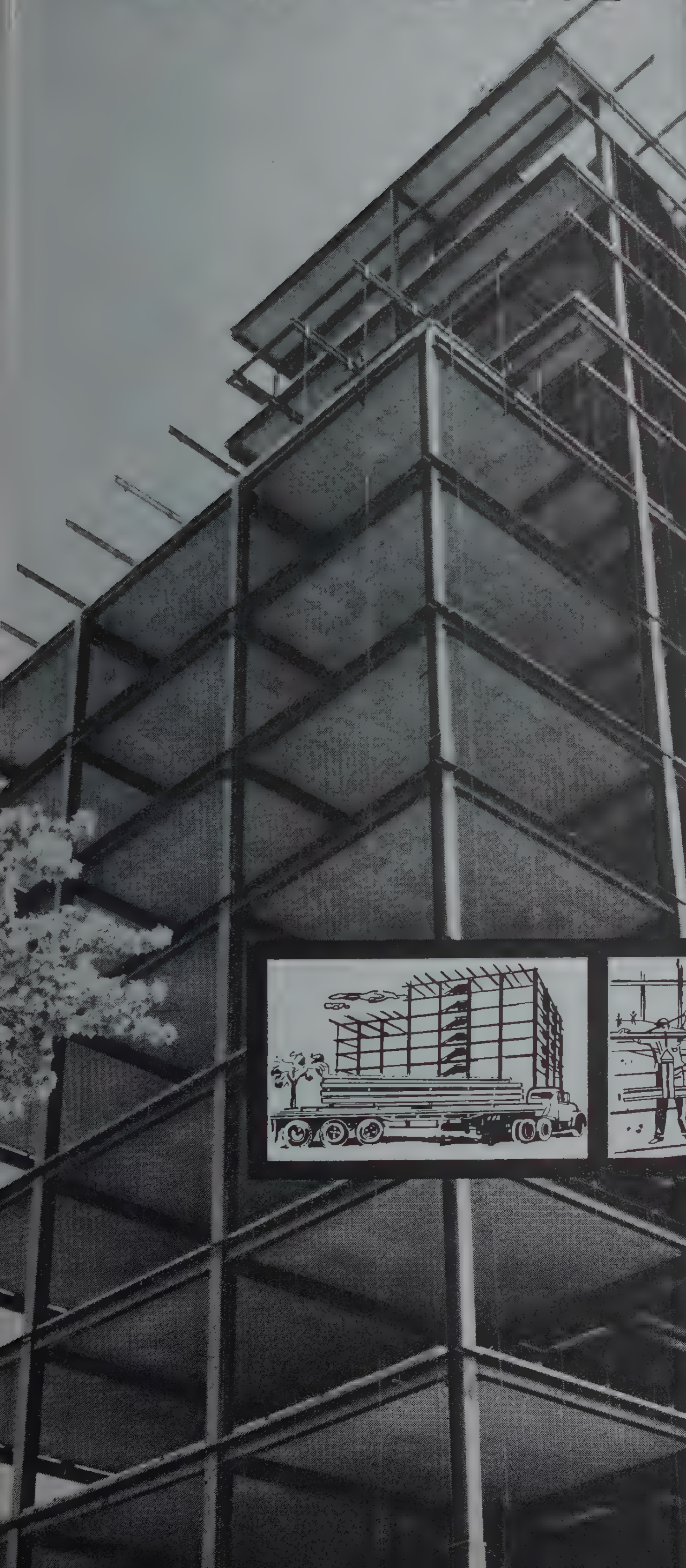
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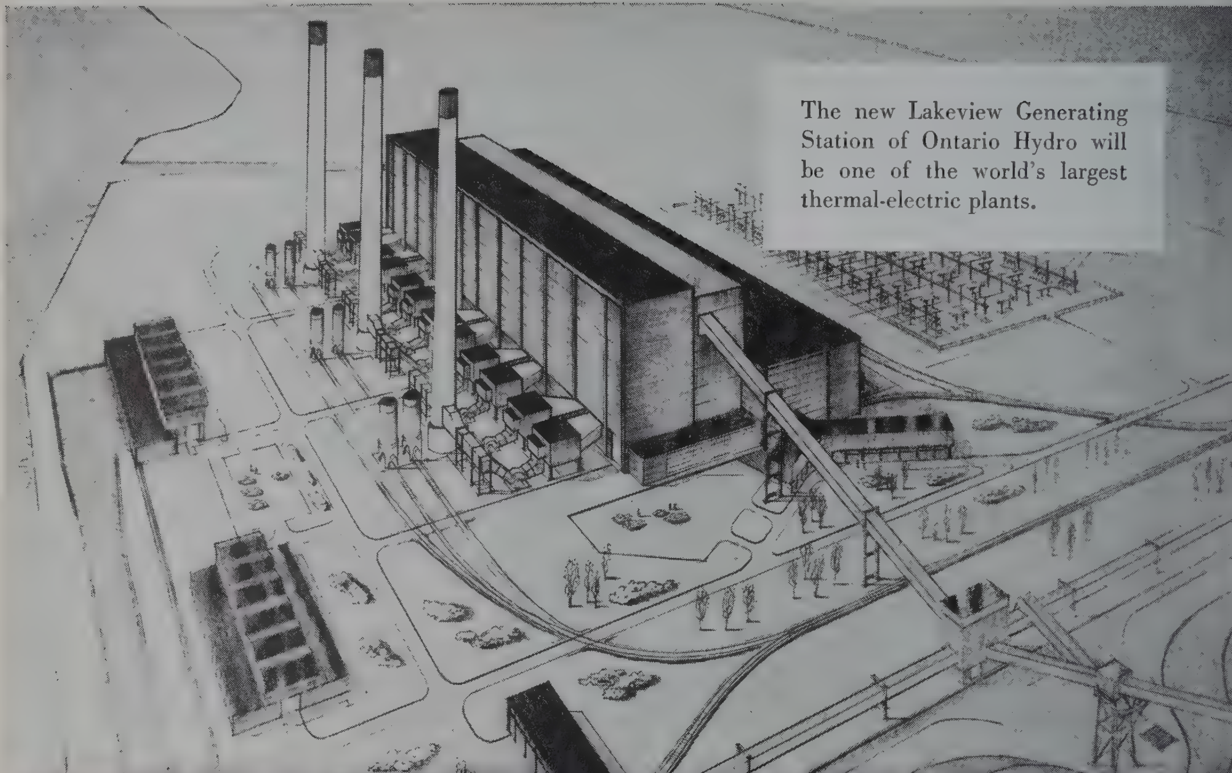
Proper temperature control helps avoid mistakes, as in this direct-dial long distance switchboard room.



Constant temperature is also important to the continued efficient operation of the complex telephone system mechanism.



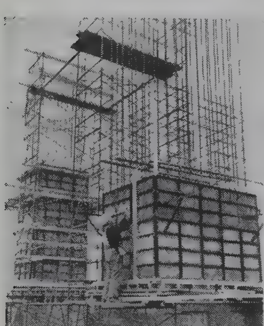




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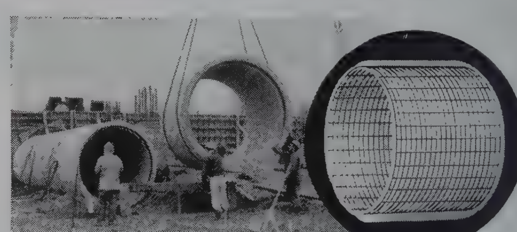
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For full details contact any STELCO Sales Office.

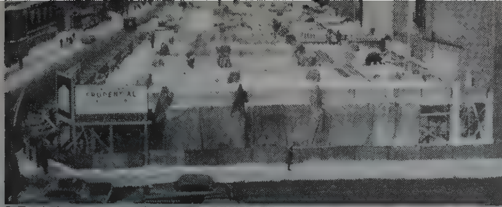
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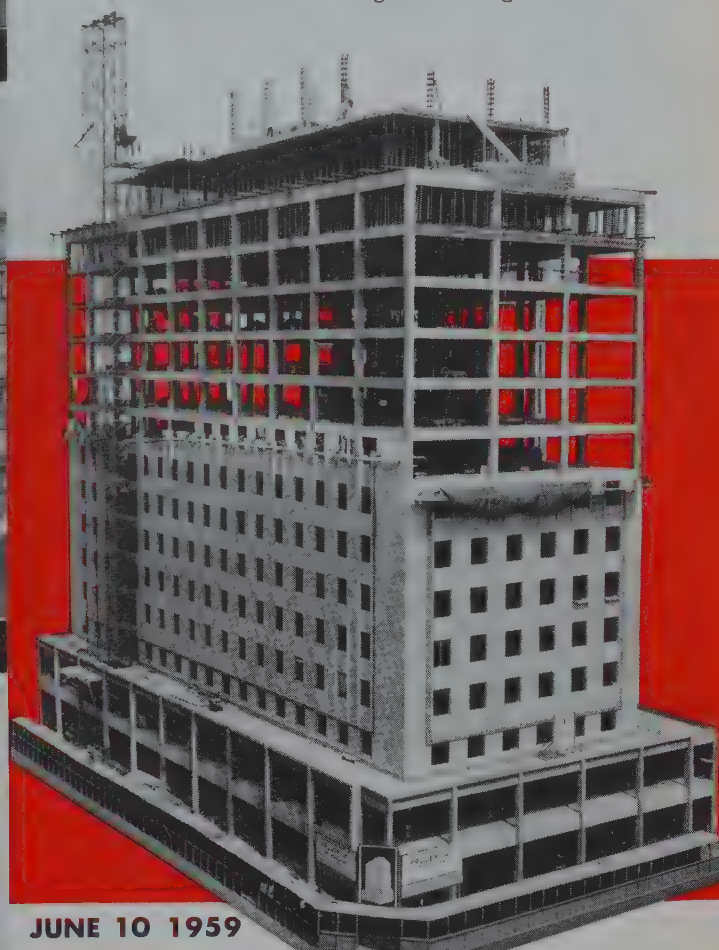
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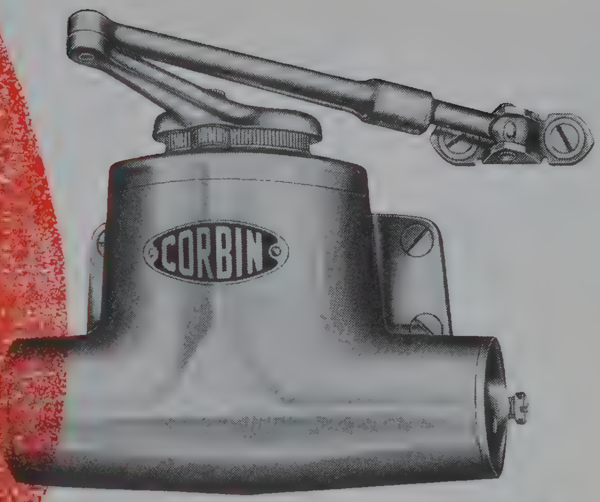
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"Bridge at Sherbrooke", Eastern Townships, Bartlett print from Canadian Scenery, pub. 1842

SERIAL 414, VOLUME 37, NUMBER 2, FEBRUARY, 1960

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ART IN PUBLIC BUILDINGS

It is unlikely that 1960 will provide more exciting news for architecture than a note we received this week from Mr Robbins Elliott. It read as follows – "I have word from the AIA that the Philadelphia City Council have unanimously passed an ordinance requiring 1% of the cost of any building, gate, bridge, arch or other structure financed in whole or in part with city funds be devoted to fine arts or appurtenant thereto." He goes on to say that "a bill with similar provisions for Federal Buildings has been introduced by Senator Fulbright."

It is true that this ordinance is for Philadelphia and not for a city in Canada, but one can be sure that the influence of so enlightened a piece of legislation will be far reaching.

Nearly a decade ago, one of the essays prepared for the Royal Commission on Arts and Sciences had this to say "The visitor to the French Embassy in Ottawa is immediately aware that he is on the soil of a country that rates its artists highly; that portrays its civilization not only in stone and mortar, but in the integrated efforts of architects, painters and sculptors.

"It would be wrong to assume that European Governments give employment and encouragement to their artists only in 'show pieces' in foreign lands. The practice seems to be common in Europe of adding a percentage to the cost of a building for painting and sculpture. The importance attached to the arts in the cultural life of a country is best shown not in great projects like the Stockholm Town Hall, but in smaller buildings like schools and hospitals.

"The standard of school building design in Canada, especially in Ontario and British Columbia, has improved greatly since the war. In matters of daylight lighting and economy of construction, our schools compare favourably with schools abroad, but many lack any emotional appeal. They are usually admirably furnished for their needs, the majority are one storey in height, but their exteriors do not suggest that they house the happy, eager children of Canada. Classrooms and windows are standardized, and it becomes increasingly difficult to distinguish the work of one architect from another.

"Such a situation does not exist in Scandinavia or in Switzerland, where schools are not better planned and are, probably, not so well lighted. The architects in those countries have a greater regard for material (doubtless, at a price), including stone, dramatically placed; and the tremendous advantage of a budget which permits half to one per cent for mural decoration and sculpture.

"In the past in Canada, mural painting and sculpture played a limited role in the embellishment of public buildings. Perhaps the architecture itself did not lend itself to such decoration, and the demand was so small that competent artists were not available. Certain it is that our town halls are for the most part dreary monuments where people would not go except for the payment of taxes or fines; our older post offices can only be described as sordid; our prewar public libraries give the appearance of being gloomy strongholds for the preservation of precious incunabula; and our smaller railway stations, in V-jointed varnished lumber, have not changed in design since the track was cut out of the prairie or the primeval forest.

"All these buildings demand a new consideration of their design, but they demand also daylight and colour. They demand painting and/or sculpture, however modest in scale. Their appearance affects all Canadians at some time in their lives. We might well study the smaller railway stations of Italy, where the impact of good design, of decoration, even of beautiful posters in appropriate places leave an indelible impression on the traveller.

"Contemporary architecture in Canada today is admirably suited to the complete collaboration of architect, painter and sculptor. With our modern appreciation of light, both artificial and daylight; with broad surfaces of unbroken wall and a free and open plan in public areas, there is every opportunity to make the utmost of the art of painter and sculptor.

"The high level of taste in European countries is evident not so much in the great national galleries, as it is in the care of grounds, in a statue in an unexpected place, in the expenditure of money for painting and sculpture in buildings that, in Canada, would be considered coldly utilitarian or drearily official. Of perhaps greater significance is that this obvious pride in the arts is as evident in the village and the small town as it is in metropolitan centres.

"Among the best examples in North America of the collaboration of architects, painters and sculptors are low rental subsidized housing estates in the United States. The best (so far as collaboration is concerned) were built in 1936 and 1937 when W.P.A. was able to spend funds for the assistance of sculptors and painters. The results can hardly be measured in terms of happiness to tens of thousands of former slum dwellers, and of professional satisfaction to scores of artists who had their 'start' on these 'depression measures'. The same authority employed artists on buildings of many types, but it is likely that nowhere were painting and sculpture more appreciated than in the densely populated housing estates.

"Too often, our public buildings at all levels of government are made to occupy every dollar's worth of land. If greater care were taken in site planning in conjunction with local planning boards, great opportunities would be presented for the sculptor to display his art. It is no wonder that the art of the sculptor in Canada is the weakest of the arts – the opportunities for its development have not been there."

With new city halls, new embassies and new public buildings in Ottawa and every capital city, the arts may flourish in a way we have not yet seen in this country.

E.R.A.

L'ART ET LES ÉDIFICES PUBLICS

Il y aura peu de nouvelles, en 1960, plus intéressantes pour les architectes que la note suivante que nous faisait parvenir cette semaine M. Robbins Elliott: "J'apprends de l'AIA que le conseil municipal de Philadelphie a adopté à l'unanimité une ordonnance selon laquelle 1 p. 100 du coût de tout édifice ou autre structure dont l'érection est financée en totalité ou en partie avec les fonds municipaux doit être affecté aux beaux-arts ou aux arts connexes." Il ajoute "qu'un projet de loi contenant des dispositions semblables au sujet des édifices fédéraux a été présenté par le sénateur Fulbright."

Même si l'ordonnance a été adoptée à Philadelphie et non au Canada, on ne saurait douter de la longue portée qu'aura une mesure législative aussi éclairée.

Il y a près de10 ans, l'une des études présentées à la Commission royale sur les arts, lettres et sciences déclarait ce qui suit: "Dès qu'il pénètre dans l'ambassade de France, à Ottawa, le visiteur se rend compte qu'il se trouve sur le sol d'un pays qui a ses artistes en haute estime et qui conçoit sa civilisation non seulement en termes de pierre et de mortier, mais d'efforts conjoints de l'architecte, du peintre et du sculpteur.

N'allons pas croire que les pays d'Europe n'ont recours à leurs artistes que lorsqu'il s'agit de construire des immeubles dans les pays étrangers afin d'attirer l'attention. Il semble être de pratique courante en Europe d'affecter une fraction du coût d'un immeuble à la peinture et à la sculpture. L'importance des arts dans la vie culturelle d'un pays se voit dans ses petits édifices — écoles ou hôpitaux — et non dans de grandes réalisations tel l'hôtel de ville de Stockholm.

Le niveau architectural des écoles construites au Canada s'est beaucoup élevé depuis la guerre. Par leur éclairage et l'économie de leur construction, nos écoles soutiennent la comparaison avec celles de l'étranger, mais beaucoup sont mornes. Leur ameublement répond bien à leurs besoins, la plupart n'ont qu'un étage mais on ne se douterait pas, à les voir, qu'elles abritent de petits Canadiens pleins de vie et d'ardeur. Les classes et leurs fenêtres se ressemblent toutes et il devient de plus en plus difficile de distinguer les oeuvres de différents architectes.

Il en va bien autrement dans les pays scandinaves et en Suisse où les écoles ne sont pas de meilleure facture et ne sont peut-être pas aussi bien éclairées. Les architectes de ces pays se préoccupent davantage des matériaux, y compris la pierre dont ils savent tirer des effets frappants; ils ont aussi le grand avantage de pouvoir consacrer entre un demi et un pour cent du coût à la décoration murale et à la sculpture.

Ces deux arts n'ont joué au Canada jusqu'ici qu'un bien petit rôle dans la décoration de nos édifices publics. Notre architecture ne s'y prêtait peut-être pas et la demande était si faible que nous manquions d'artistes compétents. Il est certain que la plupart de nos hôtels de ville sont de mornes monuments où personne n'irait s'il n'y avait pas de taxes ou d'amendes à payer; le mot sordide est le seul qui qualifie nos vieux bureaux de poste; nos bibliothèques publiques d'avant guerre ressemblent à de grises forteresses où dorment, inaccessibles, de précieux incunables; et nos petites gares de chemin de fer, avec leurs poutres vernies, en V, n'ont pas changé d'air depuis que la voie ferrée a franchi la Prairie ou la forêt vierge.

Il faut repenser la conception de ces immeubles, et y incorporer l'éclairage naturel et la couleur. Il y faut de la peinture et de la sculpture, si peu que ce soit. La beauté de ces immeubles atteint tous les Canadiens à quelque moment de leur vie. Regardons les petites gares d'Italie, où la ligne, la décoration et même de belles affiches bien disposées laissent au voyageur une impression inoubliable.

L'architecture contemporaine au Canada se prête admirablement à la collaboration étroite de l'architecte, du peintre et du sculpteur. Avec notre sens moderne de l'éclairage, tant artificiel que naturel, disposant de vastes surfaces murales ininterrompues et pouvant aménager des espaces libres pour le public, il n'en tient qu'à nous d'exploiter au maximum toutes les ressources du peintre et du sculpteur.

Le haut niveau du goût en Europe se manifeste non seulement dans les grands musées nationaux mais surtout dans le soin qu'on apporte à l'aménagement du terrain, par exemple en plaçant une statue dans un coin inattendu. On y consacre de l'argent à la peinture et à la sculpture dans des édifices que nous, au Canada, jugerions froidement utilitaires ou tristement officiels. Preuve encore plus forte, cet orgueil manifeste à l'égard des arts se retrouve dans le village et la petite ville aussi bien que dans les métropoles.

Certains des meilleurs exemples de la collaboration entre architecte, peintre et sculpteur en Amérique du Nord, sont les quartiers d'habitation subventionnés, à loyer modique, aux Etats-Unis. Les meilleurs à ce titre ont été aménagés en 1936 et 1937 alors que le W.P.A. pouvait disposer de fonds pour venir en aide aux peintres et aux sculpteurs. Les résultats sont inappréciables en termes de bonheur pour les dizaines de milliers de personnes logées auparavant dans des taudis, et en termes de satisfaction professionnelle pour les dizaines d'artistes qui ont fait leur "début" à l'occasion de ces "mesures de crise". Les mêmes autorités ont eu recours à des artistes qui ont travaillé à des édifices de tous genres mais nulle part, semble-t-il, la peinture et la sculpture n'ont été mieux appréciés que dans ces quartiers d'habitation à population dense.

Trop souvent, nos édifices publics, dans quelque sphère de gouvernement que ce soit, occupent la totalité du terrain qui leur est destiné. Si l'on apportait plus de soin à choisir, de concert avec les autorités locales, le site des édifices, on pourrait fournir au sculpteur l'occasion d'exposer ses oeuvres. Il n'est pas étonnant que la sculpture soit le plus faible des arts au Canada: elle n'a eu aucune occasion de s'épanouir."

La construction de multiples édifices publics à Ottawa et dans toutes les villes importantes pourrait être l'occasion d'un épanouissement des arts précédent au Canada.

E.R.A.

Institute News

Manitoba

The Annual Meeting of the Manitoba Association of Architects was held January 16 at the Fort Garry Hotel, Winnipeg. The existing Executive Council was re-elected to serve during 1960: President, James E. Searle, Vice-President, N. M. Zunic, and M. Blankstein, D. Gillmor, L. J. Green, H. H. G. Moody, D. Thordarson, H. C. Tod, Eric Thrift, E. J. Smith and G. Stewart.

Deliberations during the day centered around preparations being made for the Annual Assembly of the Royal Architectural Institute of Canada, which will be held in Winnipeg, commencing June 1, 1960. It is estimated that approximately 350 delegates will attend from all parts of Canada. Prominent speakers will include Basil Spence, FRIBA, President of the Royal Institute of British Architects and winner of the Coventry Cathedral Competition; and the Prime Minister, Rt Hon John Diefenbaker.

A motion of considerable interest resulted in the setting up of a committee to work on a local public service level, assisting groups such as the RAIC Committee of Inquiry on the Residential Environment, the Welfare Council, Urban Renewal and the Community Planning Association.

Thirty senior students of architecture from the University of Manitoba were among the guests at the luncheon Saturday. The meeting was concluded with the annual dinner dance in the evening.



CAMPBELL & CHIPMAN

Photographed at the annual meeting of the MAA were, front row, left to right, Howard Bouey, Edmonton, member of the RAIC Executive Committee representing Western Canada; James E. Searle and Nick Zunic, re-elected President and Vice-President; and, back row, four members of the Council, E. J. Smith, D. Thordarson, Morley Blankstein and George Stewart.

British Columbia

Two events took place in Vancouver during the week of January 18 which had something in common. One was the RAIC Committee of Enquiry into the Residential Environment and the other was a visit to the January 21 meeting of the Vancouver Chapter by Mr Paul Thiry, AIA, of Seattle, Washington.

The Committee of Enquiry sat for three days in Vancouver, commencing January 18, and generated a steady stream of comment in the daily press. No less than forty organizations, individuals and groups, presented briefs expounding a bewildering assortment of viewpoints. Newspaper attention to design and planning with respect to the residential environment was never so conspicuous as in the past few days. As an observer at one of the sessions, I was struck by the wide variety of evidence and opinion presented to the Committee. Perhaps the most difficult task ahead for the Committee will be the mammoth job of sifting through the mountain of material which undoubtedly will confront them now that the cross-country tour has ended with the Victoria hearings. Chairman Peter Dobush was quoted in a Vancouver newspaper as saying their report is likely to prove "so embarrassing that nobody will like it and action will be imperative". Judging by one editorial in the daily press "Vancouver likes to sprawl", I understand at least one brief defended this point of view arguing that anything else implies an invasion of individual rights and freedom. I noticed in the session I attended a shortage of factual evidence in support of certain proposals for more organized residential development. Possibly this indicates a need for more survey information and analysis at the root of the problem – the fundamental needs and desires of the suburbanite. Chairman Dobush was quoted as saying that much information presented across the country was "expert opinion backed by experience but not confirmed by detailed statistics". If one is to judge by the volume of opinion, experience, and evidence presented during the Vancouver hearings, Canada has indeed a serious "housing environment problem" and this investigation comes none too soon. It is to be hoped that the Committee report, to be ready in June, will provide the impetus and point the way toward a solution.

One thing that must have been noticeable to those reading the newspaper accounts and attending the hearings, was the occasional reference to what might be called the default of the profession in matters concerning the design and planning of residential areas. The degree of this default and its implications may be decided by the findings of the Committee. It seems clear in Vancouver and probably elsewhere that architects must participate far more actively than they have in the past in the "arena of community living" as Vancouver architect Jim Dudley put it. And by this I am sure Mr Dudley means more than the design of individual custom homes on acre view lots. One thing that is certain: it is fortunate that the profession has been the prime mover in launching this national enquiry and that architects are prominent in its composition and vocal in stating the case for design in the many hearings which have been held.

Address by Paul Thiry

In a similar vein, Paul Thiry, noted American architect practising in Seattle, spoke to the Vancouver Chapter. Peter Thornton introduced the Chapter's guest speaker and described his longtime interest and participation in the affairs of his community. Mr Thiry's talk was forceful and impressive in its obvious sincerity. Without dealing in any new or startling ideas he argued convincingly for the supremacy of the architect in matters of design. He called for a greater awareness of the natural beauties of our physical

environment and deplored the cult of ugliness and the poverty of design in our towns and cities which in itself, as he noted, is in danger of becoming a new source and measure of beauty. He urged the architects to grasp again their traditional role as judges and creators of order and beauty in our environment and to persuade others at every opportunity of the urgency of reshaping our surroundings in a different mold. This is a theme which is becoming increasingly audible and one which the profession must pay close attention to in years ahead. The same note was sounded last fall at the AIA meeting in Portland, Oregon, when local AIA Chapters and individual architects were urged to "take the lead in improving our cities by advancing a co-ordinated approach to planning for community building and rebuilding".

Mr Thiry concluded his talk by showing the Chapter a series of excellent colour slides of the Century 21 Exposition to be held in Seattle during the summer and fall of 1962. He is chief architect for this international exposition and the designer of several of the major buildings. The theme of this "World Fair" will be "Man in the 21st Century" and judging by the preview which Mr Thiry gave the Vancouver Chapter, this will be something to see.

Early in January the AIBC Council announced the appointment of Mr Fred Brodie as Registrar of the AIBC for 1960 and of Mr Don Jackson as Honorary Treasurer. AIBC Vice-President, Ned Pratt was again in the news when it was announced that he had been appointed by the American Institute of Architects to serve on the five-man jury which will decide on the Reynolds Memorial Award for 1960.

Charles A. Tiers

AAPQ Assemblée Annuelle

La 69ième Assemblée Annuelle de l'Association des Architectes de la Province de Québec eut lieu cette année à Sherbrooke, Québec, les vendredi 29 et samedi 30 janvier.

Cette réunion fut entièrement consacrée à la discussion des affaires internes de l'Association, sauf la soirée du vendredi, divisée entre la joute de curling annuelle et une danse.

Les membres furent convoqués pour discuter et adopter les rapports annuels; ratifier les nouveaux Règlements concernant les Chapitres; discuter les affaires nouvelles.

Un certain nombre de membres arrivés, jeudi le 28 janvier, furent l'objet d'une réception de la part du Chapitre de Sherbrooke, au Club Social de l'endroit.

Dès 9:30, vendredi matin, plus de soixante architectes réunis dans la salle Mayfair de l'Hôtel New Sherbrooke, sous la direction de Monsieur Randolph C. Betts, discutèrent et acceptèrent le procès-verbal de la 68ième assemblée annuelle, les rapports annuels pour l'année 1959, ainsi que des rapports des Comités à demeure, des comités spéciaux, et des vérificateurs.

A midi et demi les membres furent l'objet d'une réception civique à l'Hôtel de la Cité de Sherbrooke, de la part du Maire Monsieur Armand Nadeau. La deuxième séance s'ouvrit par le rapport du président sortant de charge, Monsieur Randolph C. Betts. Vers trois heures le nouveau Président, les membres de l'exécutif les membres du conseil, ainsi que les délégués à l'IRAC pour l'année 1960 entrèrent en fonction.

Les nouveaux règlements relatifs à l'organisation de chapitres de l'Association dans divers centres de la Province furent acceptés, ainsi que le montant de la cotisation annuelle qui fut porté à $80.00 payable en deux versements.

La discussion s'engagea ensuite sur l'étude des résolutions soumises par un groupe de 30 architectes, résolutions traitant entre autres des élections annuelles de l'AAPQ, de l'ethique professionnelle, de la structure des comités permanents, de la charte et des règlements, de la promotion architecturale, et enfin des relations entre architectes et ingénieurs ainsi que de leurs responsabilités respectives.

Il fut aussi question du code municipal et de la loi des cités et villes, afin d'amender ceux-ci de façon à contenir des dispositions rendant obligatoire pour toute cité, ville et village de la Province de Québec d'exiger pour la construction de tout édifice public et de tout édifice commercial ou industriel que des plans et devis préparés par un architecte et conformes aux règlements de construction en vigueur soient soumis à l'approbation de l'inspecteur des bâtisses avant qu'un permis de construction ne soit émis.

Les membres présents furent d'accord à promouvoir l'intérêt des membres de l'AAPQ au *Journal,* leur seul magazine professionnel.

Enfin, une résolution fut envoyée au gouvernement provincial, afin que celui-ci organise un concours provincial pour l'agrandissement des édifices du Parlement.

Ces discussions maintenues à un haut niveau professionnel ne se terminèrent que samedi midi. Elles créèrent beaucoup d'intérêt et parmi les membres présents, et donnèrent suite à plusieurs voeux et résolutions à l'adresse du nouveau conseil.

Vendredi après-midi, à cinq heures, Mgr Maurice O'Bready, c.s. secrétaire général de l'Université de Sherbrooke inaugura une exposition des oeuvres des architectes de la région des cantons de l'est, au Club Social.

Cet événement fut suivi avec intérêt par les membres de la presse, de la radio et de la T.V.

Samedi midi, à l'occasion du déjeuner annuel, une présentation d'un plateau d'argent avec inscription fut faite au Dr Ernest Cormier, FRAIC à l'occasion de ses quarante années de pratique architecturale.

Le conférencier invité fut Armand Nadeau, maire de Sherbrooke. Il fut présenté par Monsieur Denis Tremblay, président du Chapitre de Sherbrooke et remercié par monsieur Richard E. Bolton FRAIC vice-président de l'AAPQ.

L'an prochain, la réunion aura lieu à Québec.

Paul-O. Trépanier

(Continued on page 80)



PQAA 1960 Council: left to right; Robert P. Fleming; Louis N. Audet, Past President; Edouard W. Tremblay, Treasurer; Henri Mercier, President Elect; Randolph C. Betts, Past President; Paul-O. Trépanier, Second Vice-President; Gilles Marchand; Noel Mainguy.

Nabob Foods Plant

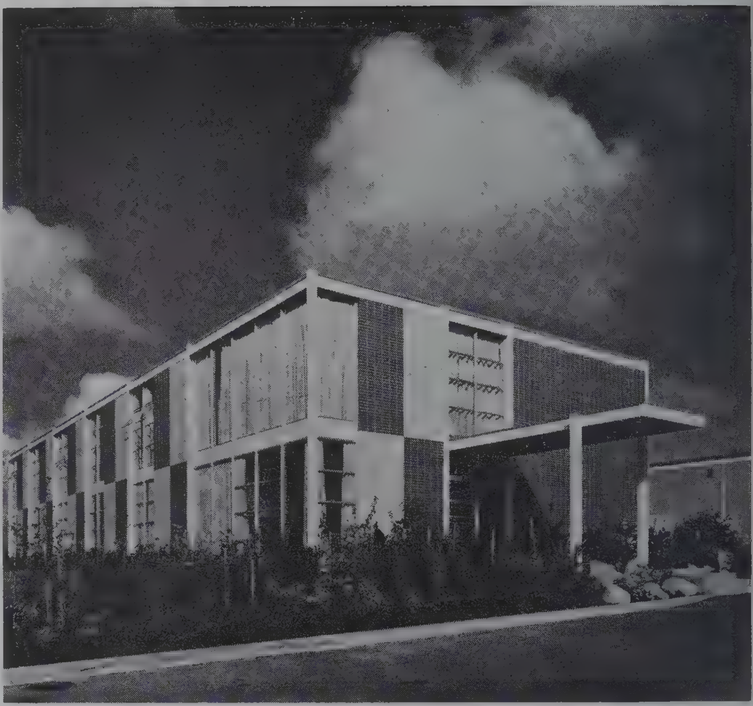
Lake-City Industrial Park,
Burnaby, B.C.

Architects
Watkins and Massey
Vancouver

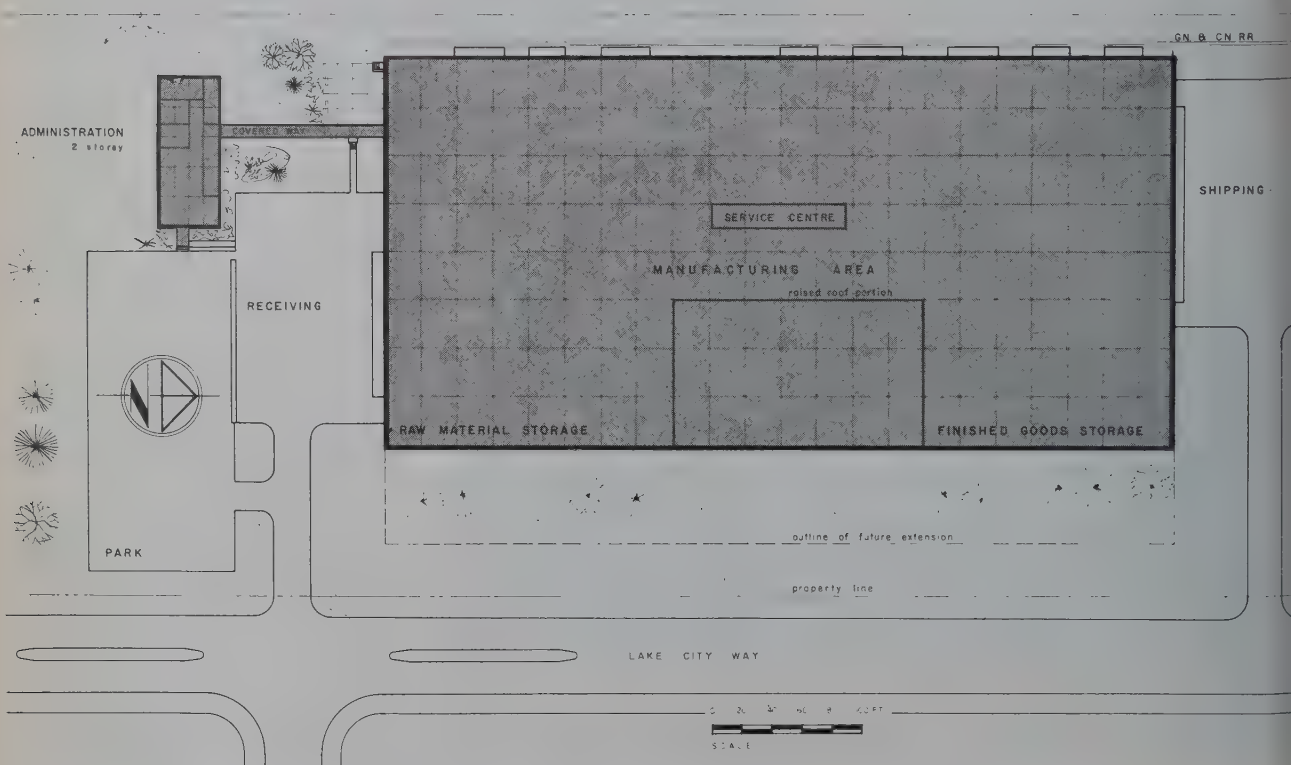
Consultants
Structural–Swan, Wooster and Partners
Electrical–Simpson and McGregor
Mechanical–R. J. Cave & Co Ltd

Contractor & Owner
Toronto Industrial Leaseholds (1957) Ltd

The plant was constructed for the Nabob Foods Division of Kelly Douglas Co Ltd for the manufacturing of tea, coffee and peanut butter. The plant section is constructed of steel frame with concrete block infill, and the office block of steel frame with glazed brick (Darlington) infill in blue and white rectangles. The link to the plant is steel frame with fibreglass panels.



Office block



Receiving area with link in background



Photos by Harry Cantlon

General view of plant

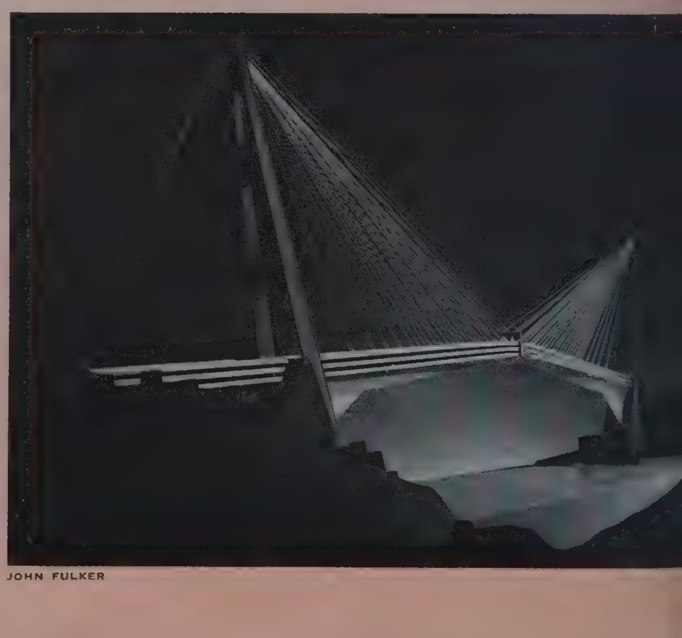




A Bridge Proposal for Vancouver

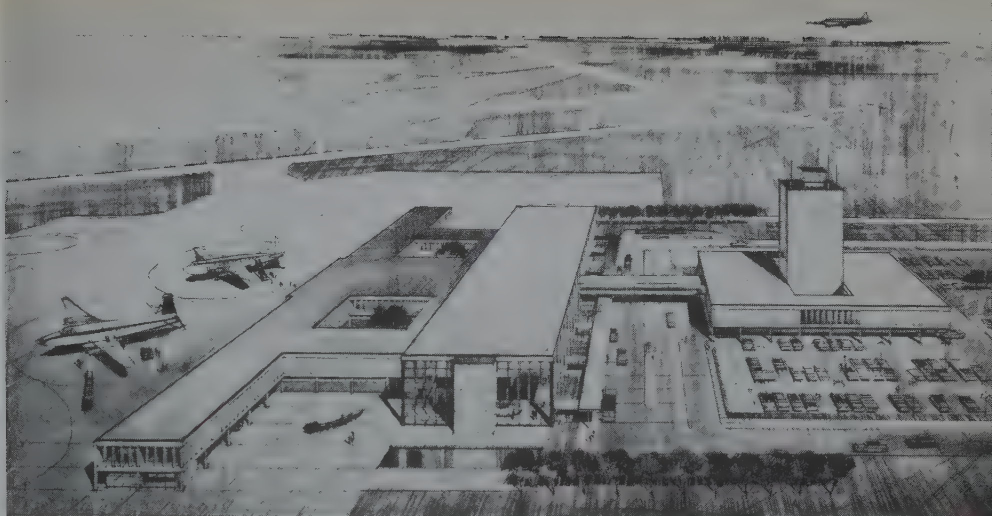
A new type of suspension bridge and a system of integrated approaches for the First Narrows Crossing is proposed by Vancouver architect, Christopher Owtram. The proposed bridge is the result of Mr Owtram's studies of congestion caused by the increased volume of traffic flowing across the present First Narrows Bridge and anticipates a future arterial highway from the metropolitan area into the northern hinterland of British Columbia, for which the proposed new crossing and its approaches would be essential.

The proposed structure is a 2,000 foot clear span with 790 feet steel mastheads hinged and supported on massive concrete abutments. The main cantilever-sections and the web of intricate suspension cables carry a bridge of twelve traffic lanes on three superimposed decks, the construction of which would be primarily of reinforced fibreglass.



JOHN FULKER

Terminal Building for Winnipeg



HENRY KALEN

Architects & Engineers: Green, Blankstein, Russell Associates, Winnipeg

The structure consists of two integrated units, a passenger and airlines terminal building, seen at left, and, at right, with the control tower, a building for Department of Transport operational services. The building is to be completed in 1964.

Two Airport Projects

A solution to the problems of flexibility and expandability at Toronto's Malton Airport is seen in this design for Aeroquay buildings. The first will be completed in 1962 and space has been allocated for three more, to be built as required.

Architects & Engineers: John B. Parkin Associates, Toronto

PANDA

Aeroquay for Toronto



Les Cantons de l'Est

The Eastern Townships

Denis Tremblay

La region de la province de Québec connue sous le nom de Cantons de l'Est (Eastern Townships) et qu'on nomme aussi l'Estrie, est située au sud de la province, voisinant les états du Maine, du New-Hampshire et du Vermont. Elle comprend les comtés d'Arthabaska, Brome, Compton, Drummond, Frontenac, Missisquoi, Richmond, Shefford, Sherbrooke, Stanstead, Wolfe et Mégantic. C'est un territoire dont la superficie excède 4,500,000 acres et dont la population actuelle dépasse 450,000 habitants.

Le territoire fut arpenté peu après 1791, et le nom de Eastern Townships lui fut donné pour le distinguer de Western Townships, sur la rive nord du Saint-Laurent, cette région se trouvant à l'Est de la partie la plus peuplée du Canada.

L'histoire des Cantons de l'Est se divise en trois principales périodes: la période abénaquise (1680-1760), la période anglaise (1760-1840), et la période française (1840 à nos jours).

Les Cantons de l'Est ne furent pas colonisés pendant la première période. Ils étaient parcourus par les Abénaquis, une tribu de la nation algonquine. Ces sauvages fréquentaient les rivières Saint-François, Chaudière et Bécancour et leurs tributaires, ainsi que le nord du Vermont et du New-Hampshire. Amis des Français, les Abénaquis se rendaient à Québec pour y faire la traite des fourrures et rencontrer des missionnaires. Tout ce qui reste dans la région comme souvenir de ses premiers habitants est le nom algonquin de quelques lacs et rivières et de quelques localités: Arthabaska, Magog, Memphremagog, Coaticook, Massawippi, etc.

Après la conquête anglaise et le traité de Versailles (1783) la région des Cantons de l'Est demeura d'abord déserte, et même l'immigration des Loyalistes ne fut pas d'abord encouragée parce qu'on préférait garder comme une sorte de "no man's land" entre le Canada et les colonies rebelles d'outre-frontière. On sait qu'à l'automne de 1775 des troupes américaines, sous la conduite du général Benedict Arnold, se lancèrent à l'attaque de notre pays en pénétrant par le Maine dans la région réservée par Frontenac en 1680 aux Abénaquis, en passant par le lac Mégantic et la rivière Chaudière pour rejoindre les forces du général Robert Montgomery devant Québec occupé par les Anglais. Les troupes d'Arnold comptaient environ 12,000 hommes. Cette armée, fortement décimée par la misère d'une longue marche, se joignit à celle de Montgomery pour mettre le siège devant Québec. Par suite du manque de vivres, ils se virent forcés d'attaquer les défenses de la ville le 31 décembre, mais ils furent repoussés et Montgomery fut tué dans le combat. On avait donc lieu de craindre une nouvelle invasion du Canada par ce territoire.

The region, in the province of Quebec known as the Eastern Townships – also called "l'Estrie", in French – lies in the southern part of the province, adjoining the states of Maine, New Hampshire and Vermont. It includes the counties of Arthabaska, Brome, Compton, Drummond, Frontenac, Missisquoi, Richmond, Shefford, Sherbrooke, Stanstead, Wolfe and Megantic. It exceeds 4,500,000 acres in area and has a population of over 450,000.

The land was surveyed shortly after 1791 and was given the name Eastern Townships to avoid confusion with the Western Townships, on the north shore of the St Lawrence, this region being east of the most populous part of Canada.

The history of the Eastern Townships can be divided into three main periods: the Abnaki period (1680-1760); the English period (1760-1840); and the French period (1840 to date).

The Eastern Townships were not settled during the first period. They were scoured by the Abnakis, a tribe of the Algonkin nation. These Indians travelled the St Francis, Chaudière and Bécancour rivers and their tributaries, and they roamed through northern Vermont and New Hampshire. Friends of the French, the Abnakis went to Quebec city to trade furs and meet missionaries. All that remains in the region, as a reminder of its first inhabitants, is the Algonkin names of some lakes and rivers and of a few localities: Arthabaska, Magog, Memphremagog, Coaticook, Massawippi, etc.

After the English conquest and the treaty of Versailles in 1783, the Eastern Townships remained uninhabited at first, and even Loyalist immigration was not encouraged, because it was considered preferable to keep a kind of "no man's land" between Canada and the rebellious colonies across the border. In the Fall of 1775, American troops under General Benedict Arnold attacked our country by penetrating, through Maine, into the region set aside by Frontenac in 1680 for the Abnakis, and sailing through Megantic lake and down the Chaudière river to join forces with General Robert Montgomery before Quebec city, occupied by the English forces. Arnold's forces numbered about 12,000 men. These troops, decimated by the hardships of a long journey, joined Montgomery's forces to lay siege to Quebec. Due to a shortage of supplies, they were forced to attack the fortifications of the town on December 31, but were repelled and Montgomery was killed in the encounter. There were grounds, therefore, to fear a new invasion of Canada through this territory.

The settlement of the Eastern Townships was at first carried out by the Loyalists from New England who, after the recognition of the freedom of the United States



Basilique Saint-Michel, Sherbrooke, (1957) Audet, Tremblay & Audet, Architectes

La colonisation des Cantons de l'Est fut d'abord le fait des Loyalistes de la Nouvelle-Angleterre qui, après le traité de Versailles qui consacrait l'indépendance des Etats-Unis, furent regardés comme ennemis et virent leurs bien confisqués. Ils vinrent en grand nombre s'établir au Canada. Plus de 15,000 se fixèrent dans la province de Québec dont environ 10,000 dans les Cantons de l'Est où des terres leur furent concédées. C'est ce qui explique le fait que les noms des cantons: Blandford, Stanford, Somerset, Warwick, Ascot, etc. sont des noms anglais, ainsi que les noms de la plupart des localités, bien qu'aujourd'hui la grande majorité de la population de la région soit d'ascendance française.

by the Treaty of Versailles, were considered as enemies and had their property confiscated. Many came and settled in Canada, over 15,000 in the province of Quebec and about 10,000 of this number in the Eastern Townships, where they obtained grants of land. And this accounts for the fact that the names of the Townships, Blandford, Stanford, Somerset, Warwick, Ascot, etc., are English names, as are the names of most localities, although to-day a great majority of the population is of French origin.

The slow settlement of the Eastern Townships has many causes, the main one being that it was intended at first to keep this region English, and vast expanses of



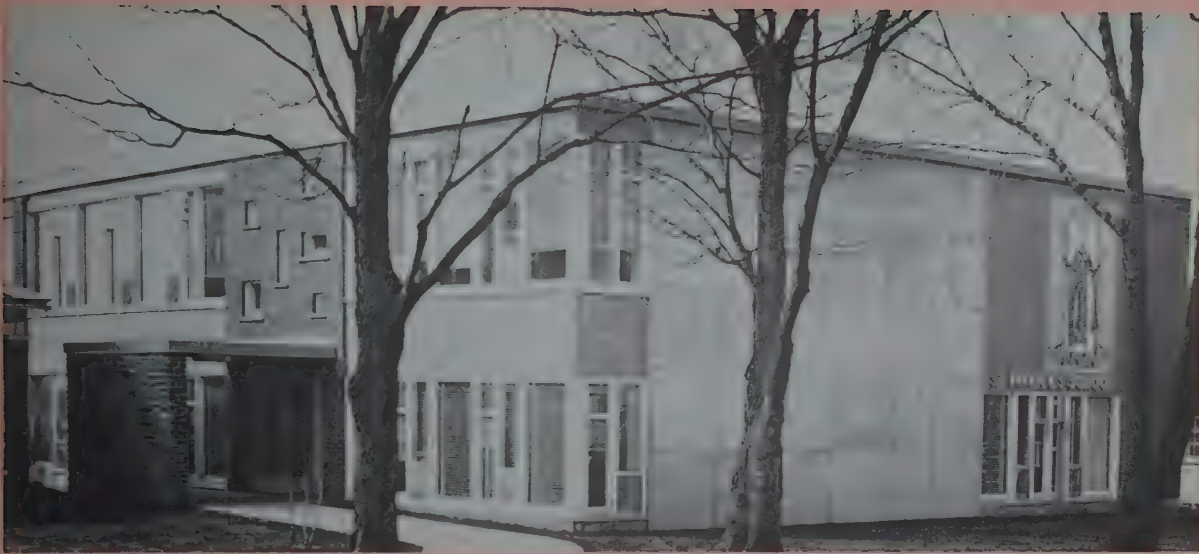
Hôtel de Ville, Waterloo
Paul O. Trépanier, Architecte



Commission d'Assurance Chômage
Denis Tremblay, Architecte

Ecole Leblanc, Sherbrooke
L. N. Audet, Architecte







St Patrick's School,
Granby, P.Q.

Paul O. Trépanier, Architecte



Edifice Fédéral, Sherbrooke
Wilfrid Gregoire et
Alphonse Belanger, Architectes



Rue Wellington,
Sherbrooke



Hôpital Sherbrooke
McDougal, Smith &
Fleming, Architectes

Le retard dans le peuplement des Cantons de l'Est est dû à plusieurs causes, dont la principale est le fait qu'on a d'abord voulu garder cette région anglaise et qu'on a concédé des étendues immenses de terre à un petit nombre de personnes qui ne tenaient pas à les mettre en valeur, préferant les garder en vue de la spéculation, ce qui empêchait les Canadiens-Français, devenus à l'étroit dans les seigneuries en bordure du Saint-Laurent, de pénétrer dans ces Cantons. De 1792 à 1811, trois millions d'acres de terre ont été concédées à deux cents personnes au plus, soit 15,000 acres de terre en moyenne par personne, et une seule personne posséda même jusqu'à 60,000 acres. D'autre part, les Canadiens-Français restaient attachés au système seigneurial et le préféraient aux terres plus pauvres des Cantons, et aussi, le plus souvent, se sentaient impuissants à y acheter un lot et à en payer les redevances. De plus, les conditions de la colonisation à cette époque étaient si dures dans cette région, dépourvue de moyens de communication et de tout confort, que les nouveaux venus des seigneuries ne pouvaient résister longtemps à la tentation offerte par les filatures américaines les invitant à traverser la frontière. C'est ainsi que les Cantons de l'Est servirent de tremplin pour l'émigration en Nouvelle-Angleterre, et qu'entre 1845 et 1850 puls de 25,000 quittèrent le pays pour tenter de trouver un meilleur sort aux Etats-Unis, où leurs descendants et ceux qui les suivirent plus tard sont aujourd'hui plus de trois millions dans les états de la Nouvelle-Angleterre.

Il fallait réagir contre ces conditions déplorables pour les Canadiens-Français au point de vue national, et c'est alors que le futur premier evêque de Sherbrooke, l'abbé Antoine Racine, alors curé à Stanford (aujourd'hui Princeville) sonna l'alarme par un manifeste intitulé "Le Canadien Emigrant" qui produisit un redressement de la situation par l'abolition des principaux obstacles qui s'opposaient à l'établissement des Canadiens-Français dans les Cantons de l'Est.

Jusqu'en 1850, comme noté plus haut, les Cantons de l'Est avaient été l'objet d'une colonisation systématique de l'élément britannique, mais déjà à cette époque, partant de leurs anciennes paroisses, les Canadiens-Français avaient commencé à s'établir sur la frange nord de la région. La création de routes, puis de chemins de fer, permit l'envahissement de la région, et une forte natalité assura son peuplement rapide. Aujourd'hui, la population française des Cantons de l'Est forme 84% de sa population totale.

Les principales ressources économiques de la région sont l'abondance d'énergie hydro-électrique, les forêts, la fertilité du sol, les mines et l'industrie manufacturière. Les plus importantes mines d'amiante du monde, produisant à elles seules les quatre-cinquièmes de la production mondiale, se trouvent à Asbestos, Thetford et East Broughton. La variété d'amiante exploitée dans les Cantons de l'Est, la chrysotile, fut découverte en 1860, à St Joseph. Les dépots de Thetford et Coleraine furent découverts en 1877, et leur exploitation nécessita la construction du chemin de fer Québec Central, reliant Sherbrooke à Lévis. Ce chemin de fer fut mis en opération en 1884, permettant d'exporter l'amiante brûte aux Etats-Unis par le Grand Tronc, reliant Sherbrooke à Portland; cette dernière ligne était en opération depuis 1854. Des papeteries importantes sont établies à East-Angus, Bromptonville, Windsor, Richmond. On commença à faire de la pulpe chimique pour la première fois au Can-

land were granted to a small number of persons who did not care to develop it, but rather wanted to keep the land for speculation. This prevented French Canadians, who had become cramped for room in the seigneuries bordering the St Lawrence river, from penetrating into the Townships. From 1792 to 1811, three million acres of land were granted to 200 persons, at the most. That is an average of 15,000 acres of land per person; one person owned even as much as 60,000 acres. On the other hand, the French Canadians were greatly attached to the seigneurial system and preferred it to moving to the poorer land of the Townships and, as a rule, they felt unable to buy a lot in that district and pay dues on it. Moreover, settlement conditions at the time were so harsh in that region devoid of means of communication and of all comforts, that newcomers from the seigneuries could not long resist the temptation offered by the American textile mills beckoning them across the border. And so it is that the Eastern Townships became a stepping stone for emigrants to the New England States. Between 1845 and 1850, over 25,000 left our country to seek a better fate in the United States, where their descendants and those who followed them later, to-day number three million in the New England States.

Something had to be done to counteract such deplorable conditions for the French Canadians, from a national standpoint. Sherbrooke's future first bishop, the Abbé Antoine Racine, then parish-priest at Stanford (to-day called Princeville), sounded the alarm by publishing a manifesto entitled *The Emigrant Canadian*. This publication helped correct the situation by removing the main obstacles to the settlement of French Canadians in the Eastern Townships.

Until 1850, as we have already indicated, the Eastern Townships had been systematically settled by people of British extraction. But even at that time, the French Canadians leaving their former parishes, had begun to settle on the northern fringe of the region. With the opening up of roads and later of railways, they moved into the area and, with their high birth rate, quickly populated it. To-day, in the Eastern Townships, the people of French origin make up 84% of the total population.

The main economic resources of the region are its abundant hydro-electric power, its forests, the fertility of its soil, and its mines and industries. The most important asbestos mines in the world, responsible for four fifths of the world's asbestos production, are situated at Asbestos, Thetford and East Broughton. The particular variety of asbestos mined in the Eastern Townships, called chrysotile, was discovered in 1860 at St Joseph. The Thetford and Coleraine deposits were discovered in 1877 and their development brought about the construction of the Quebec Central Railroad between Sherbrooke and Levis. This railroad was put into operation in 1884. It was thus possible to export crude asbestos to the United States via the Grand Trunk, between Sherbrooke and Portland; a line which had been in operation since 1854.

There are important paper mills at East Angus, Bromptonville, Windsor and Richmond. For the first time in Canada, chemical pulp was made at Windsor in 1866 and sulphite pulp was made for the first time in America at East Angus, 15 miles from Sherbrooke, in 1907.



Monastere Saint-Benoit-du-Lac (1929-1941)
Don Paul Bellot, o.s.b., architecte français



Plymouth Church, Sherbrooke (1845)
William Footner, architect

ada à Windsor, en 1866, et la pulpe au sulfite fut fabriquée pour la première fois en Amérique à East-Angus, à 15 milles de Sherbrooke, en 1907. L'industrie textile se trouve principalement à Sherbrooke, Magog, Drummondville, Cowansville. La première manufacture de cotonnades au Canada fut établie à Sherbrooke en 1844, avec un capital de £12,000 et une capacité de 12,000 fuseaux. En 1868, Andrew Paton établit à Sherbrooke une importante filature de laine qui est demeurée jusqu'à ce jour une des principales industries de cette ville. C'est à partir de cette époque que Sherbrooke perdit peu à peu son aspect rural pour devenir un important centre industriel. Le sous-sol de la région contient d'importants dépots de cuivre, à Fontainebleau, Ascot, Eastman, et la plus ancienne mine de cuivre du Canada se trouve à Eustis, à une dizaine de milles de Sherbrooke. Cette mine fut découverte en 1862.

Je paraitrai écrire pour une agence touristique, mais comment résister à vanter la nature grandiose qui fait des Cantons de l'Est un paradis du touriste et une joie constante pour les yeux de ses habitants. Le touriste qui pénètre pour la première fois dans les Cantons est émerveillé par la beauté et la variété des paysages montagneux, la grande quantité de lacs et de cours d'eau, le bon entretien des fermes. Dans un rayon d'une cinquantaine de milles autour de Sherbrooke se trouvent une trentaine de lacs dont les principaux sont connus des touristes venant des Etats-Unis et de toutes les parties de la province: les lacs Magog, Memphremagog, Orford, Brome, Massawippi, Aylmer, St-François, etc. Le lac Memphremagog, d'une trentaine de milles de longueur, s'étend de Magog à Newport (Vermont). C'est sur les bords de ce lac que se trouve l'Abbaye bénédictine de St Benoit du Lac, oeuvre de l'architecte français Don Paul Bellot, o.s.b. Au parc provincial du Mont Orford, le Camp des Jeunesses Musicales du Canada accueille chaque année des musiciens venant de toutes les parties du Canada pour y suivre des cours d'été, à l'ombre du mont l'Orford (3850 pieds d'altitude).

Les Cantons de l'Est s'honorent de compter parmi les leurs les deux seuls premiers ministres du Canada d'ascendance française depuis la Confédération: Sir Wilfrid Laurier et le T. H. Louis S. St Laurent, ainsi que l'un des pères de la Confédération: Sir Alexander Tilloch Galt. Sir Wilfrid Laurier pratiqua le droit à Arthabaska où il fonda un journal. La maison qu'il habita à Arthabaska est aujourd'hui le musée Laurier. Le T. H. Louis St

The textile industry is found mainly at Sherbrooke, Magog, Drummondville and Cowansville. The first cotton goods manufacture in Canada was set up at Sherbrooke in 1844, with a capital of £12,000 and a 12,000 spindle capacity.

In 1868 Andrew Paton established at Sherbrooke an important wool-spinning mill, which remains to this day one of the city's main industries. It is from that time that Sherbrooke gradually lost its rural aspect and became an important industrial center.

The subsoil of this region holds important copper deposits at Fontainebleau, Ascot, Eastman, and the oldest copper mine in Canada is found at Eustis, about 10 miles from Sherbrooke. The mine was discovered in 1862.

I may sound like a travel agent, but how can one refrain from praising the magnificent natural beauty of the Eastern Townships, which makes them a paradise for tourists and a constant joy to behold for their inhabitants. The tourist who enters the Townships for the first time is amazed by the beauty and variety of the mountain scenery, the great number of lakes and rivers and the orderliness of the farms. Within a radius of fifty miles around Sherbrooke there are about thirty lakes. The most important of these are well known to tourists from the United States and all parts of the province — Lakes Magog, Memphremagog, Orford, Brome, Massawippi, Aylmer, St Francis, etc. Lake Memphremagog, about thirty miles long, extends from Magog to Newport (Vermont). It is on the shores of this lake that we find the Benedictine Abbey of St Benoit-du-Lac, the work of a French architect, Dom Paul Bellot, o.s.b. At Mount Orford Provincial Park musicians from all parts of Canada gather at the summer camp of the Jeunesses Musicales du Canada (Young Musicians of Canada Movement) to attend courses at the foot of Mount Orford which rises to an altitude of 3,850 feet.

The Eastern Townships are proud to have among their native sons the only two Canadian prime ministers of French origin since Confederation, Sir Wilfrid Laurier and the Right Hon. Louis S. St Laurent; as well as one of the Fathers of Confederation, Sir Alexander Tilloch Galt. Sir Wilfrid Laurier practiced law at Arthabaska, where he founded a newspaper. The house where he lived at Arthabaska, is to-day called the Laurier Museum. The Right Hon. Louis St Laurent was born at Compton and attended secondary school at St Charles



Le Palais de Justice, Sherbrooke (1904)

Laurent est natif de Compton et fit ses études secondaires au Séminaire St Charles Borromée, à Sherbrooke. Quant à Sir Alexander Galt (1817-1893), il fut député de Sherbrooke à deux reprises, ministre des finances du Canada sous le gouvernement Cartier-Macdonald et joua un grand rôle dans la politique du Canada à cette époque. Une rue importante de Sherbrooke porte son nom.

Sherbrooke, surnommée la Reine des Cantons de l'Est, avec sa population de 64,000 habitants, en est la métropole, le centre économique et culturel. Située au confluent des rivières St François et Magog, à 100 milles de Montréal et à 30 milles des frontières des Etats-Unis, cette ville n'était, en 1838, qu'un hameau de quelques familles ayant pour seule industrie le moulin à scie de Gilbert Hyatt, d'où son nom de Hyatt's Mill, qui remplaçait le nom abénaquis des Grandes Fourches (Big Forks). Sherbrooke reçut son incorporation au titre de Ville en 1852 et au titre de Cité en 1875. Elle tire son nom de Sir John Coape Sherbrooke, qui fut gouverneur-général du Canada en 1816 et 1817 et qui visita la localité pendant son terme d'office.

Sherbrooke devint le siège d'un nouveau diocèse catholique en 1874 par le démembrement des diocèses de Québec, de St Hyacinthe et des Trois-Rivières, et son premier évêque fut Mgr Antoine Racine, l'apôtre de la colonisation des Cantons de l'Est par les Canadiens-Français. A cette date (1874), le nouveau diocèse ne comptait que 27,000 catholiques répartis dans 24 paroisses canoniquement érigées. En dix-neuf années d'épiscopat (1874-1893) Mgr Racine fonda 54 paroisses, le Séminaire de Sherbrooke (devenu l'Université de Sherbrooke en 1954) et un grand nombre d'institutions. Sherbrooke est devenu, en 1951, le siège d'une nouvelle province ecclésiastique comprenant les diocèses de St Hyacinthe et de Nicolet. La population du diocèse de Sherbrooke est de 208,792 habitants, dont 185,169 sont de religion catholique répartis en 150 paroisses.

Deux des six universités de la province de Québec se trouvent dans les Cantons de l'est. L'Université Bishops, ou Bishops' University, à Lennoxville, à trois milles de Sherbrooke, fut fondée en 1843 et obtint une charte royale universitaire en 1853 avec pouvoir de décerner des grades en arts, théologie (divinity), loi et médecine. On y établit une école de médecine en 1871, mais en 1905 cette école fut absorbée par la faculté de médecine de l'Université McGill, de Montréal. Récemment, l'Université Bishops fut agrandie de plusieurs beaux édifices,



Ancien Bureau des Postes, Sherbrooke (1881) aujourd'hui la Bibliothèque Municipale.
Francois-Xavier Berlinguet, Architecte

Borromée Seminary in Sherbrooke. Sir Alexander Galt (1817-1893) was twice member of Parliament for Sherbrooke, Canadian Minister of Finance in the Cartier-Macdonald cabinet, and he played an important part in Canadian politics of his time. An important street in Sherbrooke is named after him.

Sherbrooke, called the Queen of the Eastern Townships, with its population of 64,000, is also the metropolis and the economic and cultural center of the region. Situated at the junction of the St Francis and Magog rivers, 100 miles from Montreal and 30 miles from the United States border, the city in 1838 was a mere village, made up of a few families whose sole industry was Gilbert Hyatt's sawmill, whence its name, Hyatt's Mill, which replaced the Abnaki name of Big Forks. The city takes its present name from Sir John Coape Sherbrooke who was governor general of Canada in 1816 and 1817, and who visited the locality during his term of office. It was incorporated as a town in 1852 and as a city in 1875.

Sherbrooke became the center of a new Roman Catholic diocese in 1874 through the dismemberment of the dioceses of Quebec, St Hyacinthe and Trois-Rivières. Its first bishop was Mgr Antoine Racine, who played a leading part in the settling of the French Canadians in the Eastern Townships. The new diocese at that time (1874) numbered only 27,000, Roman Catholics parcelled out into 24 canonically constituted parishes. During his 19 years as a bishop (1874-1893) Mgr Racine set up 54 new parishes, and founded the Sherbrooke Seminary (which became Sherbrooke University in 1954) and many other institutions. In 1951, Sherbrooke became the See of a new ecclesiastical province grouping the dioceses of St Hyacinthe and Nicolet. The diocese of Sherbrooke to-day has a population of 208,792. Of that number, 185,169 are of the Roman Catholic faith and make up 150 parishes.

grâce à une souscription publique.

L'Université de Sherbrooke, la troisième université catholique de la province de Québec, reçut sa charte en 1954. Cette jeune université compte quatre facultés: arts, science, droit et commerce. Bien que l'Université de Sherbrooke soit la plus jeune de la province, elle compte déjà 1653 étudiants inscrits à ses facultés. La Cité universitaire, aux limites sud de Sherbrooke, est actuellement un chantier bourdonnant d'activité puisqu'on y construit quatre édifices, au coût de plus de trois millions et demi, grâce à une souscription publique et à des subsides du Gouvernement Provincial.

Sherbrooke compte deux bibliothèques publiques, une de langue française et une de langue anglaise, deux journaux quotidiens, un de langue française: La Tribune, et un de langue anglaise: le Sherbrooke Daily Record; deux hebdomadaires; un poste de radio et un poste de télévision; quatre hôpitaux. Au point de vue de l'enseignement à tous les degrés, la région des Cantons de l'Est est pourvue d'institutions adéquates aux besoins de sa population de langue française et de langue anglaise.

Sherbrooke est une ville industrielle importante, remarquable par la variété de ses industries: industries métallurgiques, textiles, alimentaires, de produits de papier, de vêtements, de produits de caoutchouc, etc.

En somme, les Cantons de l'Est, bien que n'ayant qu'une centaine d'années de développement, connaissent une prospérité toujours grandissante, grâce à la richesse et à la variété de ses ressources naturelles, à son industrie et à son commerce, à sa position géographique, mais surtout à l'esprit d'initiative et d'entreprise de sa population et à son caractère bi-culturel. C'est la région de la province de Québec où l'élément d'ascendance britannique est le plus nombreux par rapport à la population totale. La collaboration étroite et la bonne entente qui caractérisent les relations des deux grandes races qui forment la majorité de la population de notre pays sont sans doute, dans les Cantons de l'Est, un fait unique au Canada.

Voici, en terminant, et pour donner un aperçu du développement urbain des Cantons de l'Est, les principales villes, suivies du nombre de leurs habitants: Sherbrooke (64,000), Granby (28,500), Drummondville (26,500), Thetford Mines (20,600), Victoriaville (16,800), Magog (11,000), Asbestos (10,400), Mégantic (7,264), Farnham (6,700), Coaticook (6,810), Windsor (5,888), Cowansville (5,600), Waterloo (4,500), East-Angus (4,500), etc.

Ces quelques notes trop rapides et à bâton rompu donneront, croyons-nous, un aperçu suffisant de la petite histoire de ce coin de pays sans doute destiné à un avenir brillant dans un Canada prospère et progressif.

M. Denis Tremblay, auteur de l'article sur les Cantons de l'Est, a étudié l'architecture auprès de feu M. Wilfrid Grégoire et M. L.N. Audet à Sherbrooke, de 1929 à 1934. Devenu membre de l'Association des Architectes de la province de Québec en 1935, il exerce depuis à Sherbrooke, en société avec M. L.N. Audet et son fils Jean-Paul Audet. M. Tremblay a commencé sa carrière comme professeur de mathématiques et de sciences élémentaires au Séminaire St-Charles Borromée, maintenant l'Université de Sherbrooke, et il a été vice-doyen de la faculté des sciences de l'Université, de 1954 à 1957.

Two of the Province of Quebec's six universities are in the Eastern Townships. Bishop's University, at Lennoxville, three miles from Sherbrooke, was founded in 1843 and obtained a university Royal Charter in 1853, with the power to confer degrees in arts, divinity, law and medicine. A school of medicine was set up at Bishop's in 1871, but in 1905 the school was absorbed into McGill University's School of Medicine in Montreal. Many fine buildings were added recently at Bishop's through a public subscription.

Sherbrooke University, the third Catholic university in the Province of Quebec, was granted its charter in 1954, and to-day has four faculties: arts, sciences, law and commerce. Even though Sherbrooke University is the most recent one in the province, students registered at its schools already number 1,653. The university campus at the southern limits of the city is a center of feverish activity as four buildings are going up at a cost of three and a half million dollars, thanks to a public subscription and grants from the provincial government.

Sherbrooke has two public libraries, one French and one English; two daily newspapers, La Tribune and the Sherbrooke Daily Record; two weekly papers, a radio and a television stations, and four hospitals. As far as educational facilities at all levels are concerned, the Eastern Townships have all the institutions necessary to answer adequately the needs of its population in the French and English languages.

Sherbrooke is an important industrial city, with a remarkable variety of industries: metals, textiles, food products, paper products, clothing, rubber products, etc.

In short, although the Eastern Townships have been developed for barely a century, they are experiencing an ever increasing prosperity, due to their rich and varied natural resources, their industries and trade, their geographic situation, but above all, due to the spirit of initiative and enterprise of their population and the duality of their culture. It is in this region of the Province of Quebec that the proportion of persons of British origin is the highest in the total population. The close co-operation and the understanding which exists in the relations between the two great races which make up the majority of our country's population is undoubtedly, in the Eastern Townships, unique in Canada.

To conclude, and to give an idea of the urban development of the Townships, here are the main cities with their population: Sherbrooke 64,000; Granby 28,500; Drummondville 26,500; Thetford Mines 20,600; Victoriaville 16,800; Magog 11,000; Asbestos 10,400; Mégantic 7,264; Farnham 6,700; Coaticook 6,810; Windsor 5,888; Cowansville 5,600; Waterloo 4,500; East Angus 4,500.

These notes will, I hope, give some idea of the history of this small region of our country, which is destined without doubt to a brilliant future in a prosperous and progressive Canada.

Denis Tremblay, author of this article on the Eastern Townships, studied architecture with the late Wilfrid Gregoire and L. N. Audet in Sherbrooke from 1929 to 1934, and was admitted a member of the Province of Quebec Association of Architects in 1935. He has since practised in Sherbrooke in partnership with L. N. Audet and his son, Jean-Paul Audet. Mr Tremblay began his career as a teacher of mathematics and elementary sciences at the Seminaire St-Charles Borromée, now the University of Sherbrooke, and was Vice-Dean of the Faculty of Science at the University from 1954 to 1957.

School Design

A New Look At Some Old Problems

A Survey Conducted By
Eric R. Arthur

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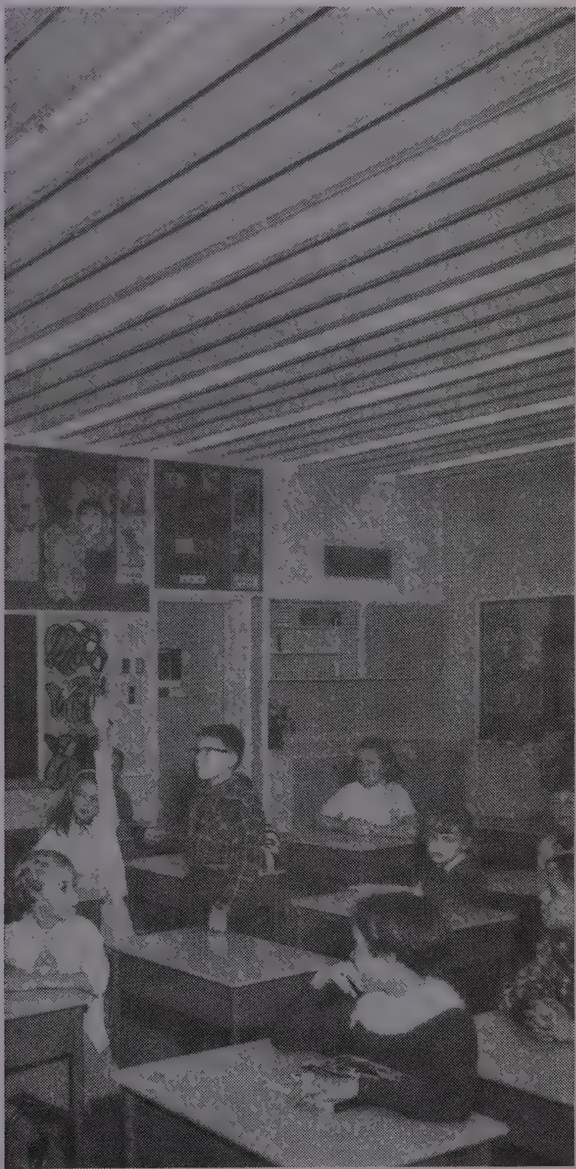
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As a basis *for this survey, I wrote a representative group of architects whom I knew were doing schools and asked them eleven questions. The response might have been expected, but what surprised me was the obvious enthusiasm for the subject by my correspondents. Three replied in seven pages of single spaced type and all took the matter most seriously.*

While I was surprised, I have always felt that architects who do schools are in a class by themselves. They enjoy doing them and they have a missionary zeal to pass on the gospel to others. I am not aware that architects doing hospitals are to be found sitting with the outpatients in our best hospitals, but I remember, years ago, seeing John Parkin of Toronto and Ernest J. Kump of San Francisco sitting with the children in a kindergarten in Chicago. They were joined by Forsey Page, B. R. Coon, J. H. Craig, J. Ryrie and G. N. Williams, without any appearance of self-consciousness on the part of the children or their elders. All were there to learn. Those were stimulating excursions that may not, so spontaneously, occur again. There may be no other building type that lends itself so well to learning by participation — unless, of course, it is the church!

The questions asked of my correspondents may look simple ones to answer but, in reality, several of them are ones that have vexed committees, and still give concern to architects and School Boards. Mr Page commented on a question I did not ask, and the answer eludes him as it has everyone else, but it is none the less important. That is the question of the life of the school in a world of change — changing curriculum and changing methods of teaching. Mr George Drew, when Minister of Education in Ontario, set that as the major problem for a committee. He saw, within a quarter century, the most radical changes in teaching methods taking place in school buildings with a life expectancy of seventy-five to one hundred years — schools that could be altered structurally only with the greater difficulty and expense. Prefabrication, different from anything we know today, will be the answer but the solution at the moment, as Mr Page says, "eludes me".

Question 1

Daylight Lighting:

Has the clerestory disappeared? If so, was it a matter of economy?

All agreed that the clerestory had gone. It took our fancy years ago when we were all excited about light from the sky, pure and undefiled, streaming into the row of desks next the corridor wall. If we failed to produce those God given foot candles, we had visions (from Texas) of what we were inflicting in the way, of malformation of the spine, faulty digestion and myopia on the children of Canada.

All agree that roof lighting of any kind is difficult to control (both for light and temperature). It is expensive and, unless very well done, it leaks.

MR RUSSELL:

"We have come to the opinion that in schools, as well as office buildings, the windows should be regarded more as a means of giving a pleasant atmosphere to the room than as a source of light for working conditions. A good system of artificial lighting is essential in any case. We use fluorescent lighting giving an illumination of forty to forty-five foot candles, and these will be on all day in any case.

"The clerestory has been used very little, if at all, in this area, due to its cost. Our Associate in Regina, E. J. McCudden, has used plastic skydomes over the inner areas of classrooms and we have used them over gymnasiums. These give good interior light and would be less costly, though not as interesting as clerestory windows."

MR PARKIN:

"Generally speaking, the tendency has been over the last ten years to increase the amount of natural lighting into the classroom. This has reached a maximum, however, and has brought with it several problems. They are, of course, solar control, heat gain, general maintenance and vandalism. School Boards are now conscious of all these items and there is a strong movement to overcome these problems through a more conservative design of windows."

MR MICHENER:

"Until the last few years, almost all Manitoba new school building employed a narrow vision strip with glass block above. There is only one example in Winnipeg that I know of where clerestory lighting has been used. This is the Harrow Ebby school by Moody and Moore. A recent school for the City of Winnipeg in the Grant Park Plaza by W. Enns makes extensive use of skylights. Several other examples in Winnipeg may be found using this type of roof lighting. In general, however, glass block still holds a dominant position where maximum use of daylight is desired."

MR SECORD:
"It is not worth the extra cost to achieve completely. There are too many overcast days. Artificial lights are used some 90% of the time, even in square classrooms with two 40″ x 30″ skydomes lighting the hall side. We are now using *less* glass area on the outside walls, and including more storage space in the form of shelves, etc., under the higher windows."

MR PAGE:
"I predict that windows will become smaller, and that there will be general recognition of artificial illumination. The clerestory has all but disappeared. It served its purpose best for classrooms on a single loaded corridor. The single loaded corridor is uneconomic."

MR WATSON:
"The clerestory and skylight have virtually disappeared due to cost and the problems of controlling light and solar heat. In a local Separate School (not one of ours), within a month of opening the school a nun was seen atop a ten-foot ladder, which was being steadied at the bottom by another nun, vigorously painting out the skylight glass. Other attempts at control had failed."

Question 2

Is the use of glass in classrooms still considered desirable from partition to partition?

Here there was an area of disagreement with Page, Watson, Delean and Michener all for wall to wall (with, one assumes, 3′0″ or 3′0″ – 6′0″ of outside wall at the blackboard end); Parker, Helmer, Secord continue to experiment with greater reliance on artificial light and a reduced window area.

Those using windows chiefly for atmosphere and the natural desire of the human being to look outside, are all aware of the old and real bogey of the strain on the eye through startling contrasts. This is obviated by curtains or Venetian blinds.

MR GREEN:
"We have used glass wall to wall in our schools, but we are just starting a classroom building for Brandon College where the windows are vertical in character and where the glass area is much less than the solid area. I have a theory that a narrow continuous vision strip which would be relatively easy to shield from the sun might work, but the appearance might be unacceptable."

Question 3

What precautions do you take against west light?

This is a real problem not only in school design, especially, as some Boards prefer a north-south axis. Watson avoids the problem, if possible, but reduces glare with canopies and fast growing trees. Others question the value of canopies and assume that discomfort can be reduced only by heat resisting and glare reducing glass, none of which is inexpensive.

MR RUSSELL:
"It is difficult to take precautions against west light, and for that matter, east light. We have tried wide eaves overhanging continuous windows with the head only seven feet from the floor and with the ceiling sloped up with the rake of the roof. This is only partially successful in controlling the low sunlight. In a classroom building for United College here in Winnipeg, which is just being completed, we have used concrete louvers two feet in front of continuous glass, and so angled as to exclude east light and west light up until four o'clock in the afternoon at the time of the summer solstice. This certainly solves the problem of glare and makes unnecessary any blinds or drapes. The louvers give the building a very strong, rugged character or make it look like a grain elevator, depending on one's point of view."

MR HELMER (who explains, in another connexion, that their school practice is largely a rural one): "Our schools usually have west rooms glazed with tinted glass. Where money is available, heat absorbing glass is used. All west classrooms are zoned as a unit or have individual room thermostats."

MR SECORD:
"If we must have west light, we have used outside screens that run vertically on a 4′ 0″ overhang."

Question 4

Artificial Lighting.

With daylight practically disregarded as a source of light for reading or writing, artificial illumination has become increasingly important. All my correspondents, except Helmer, (discussing rural schools) were using fluorescent lighting, but with some differences.

Summary would indicate forty to fifty foot candles of illumination with lights on from 60% to 100% of the school day.

MR PAGE:
"recessed fluorescent fixtures installed at *right angles* to windows".

MR SECORD:
"three rows of fluorescent fixtures running the *length* of the room".

MR PARKIN:
"Fluorescent lighting is still the most common lighting used in the classroom today. The most common fixture is a suspended fixture with light going upwards and downwards. The recessed flush fixture, while providing a better appearance, is not any more costly to install but does not provide even lighting over the ceiling surface."

MR RUSSELL:
"Some School Boards might object to the idea of running the lights during the daytime, in which case the skydomes or clerestory should be used. It is our view that the extra cost of electrical energy and lamps would not justify the additional capital cost for the skydomes or clerestory."

Question 5

Colour.

Is as much thought given to reflective values? Eye rest, lack of glare, etc., used to be very carefully studied. Are they still?

Science and the faddists seem to have given way to common sense in terms of colour. Several write of light colours and neutral colours with accent on doors and the rear wall.

MR DELEAN:
"The only real consideration we give to light reflection values is at the ceiling. When we use steel deck, for instance, we use off-white. Our wall colours are always light so as not to detract. Corridors are made as bright as possible and we keep our stronger accents to break up the length."

MR RUSSELL:
"The word 'colour' in connexion with school rooms brings to mind the almost universal use of green chalkboards. These are usually a ghastly shade of green and only work well if the teacher uses yellow chalk. Understandably, the teachers don't like yellow chalk as it stains their clothing, so I have come to the opinion that we should go back to the black chalkboards, in spite of all the propaganda put out by the suppliers. Glare is a problem largely associated with the windows, and in my opinion cannot be completely solved until school authorities are willing to abandon the present idea that the desks should be placed in straight rows parallel to the windows. The square classroom with the desks placed a little on the diagonal so that light from the windows does not strike directly into the corner of the students' eyes would be much better."

MR MICHENER:
"Our own approach to colour has been to provide large areas of neutral background tones with small areas of intense colour to provide visual relief."

MR PARKIN:
"We would say generally that not as much thought is given to reflective values of wall surfaces as there used to be ten years ago. The problem of glare, however, is still studied very carefully, but the use of brighter colours in schools is becoming more standard. These colours, however, are placed in areas which are not prominent in classrooms."

MR WATSON:

"We are giving much thought to colours, particularly combinations of colours in a room; floors, walls, ceiling, trim, etc., staying in the high reflective range but using matt finishes. A great deal of natural slate is being used still; the only colour we use in the synthetics is green. Primary paint colours for accents delight the children, and even the teachers, after the first shock."

Question 6

What are present opinions on the ideal number of pupils in a class? Do you achieve this, or does economy or some other factor determine room sizes?

Not a very good question because the architect has no influence over the ideal which should not be greater than thirty-five in an elementary school. Teachers prefer thirty.

MR PARKIN:

"There are many classrooms with more than forty, and many with fewer than twenty. The average for the province is thirty-two. The average classroom in Ontario is 24′ 0″ x 34′ 0″."

MR MICHENER:

"The average in Manitoba is 24′ 0″ x 32′ 0″ based to some extent on a 2″ x 12″ wood joist at 12″ centres which will support a Manitoba snow load."

MR RUSSELL:

"We have just finished plans for a high school where the classrooms are 28′ 0″ square for a class of thirty to thirty-five."

Question 7

Was I wrong, in an editorial, in thinking that with the co-operation of School Boards and architects, school costs could be reduced?

Generally speaking, I was wrong. A Board can, I learn, cut out the principal's room, storage rooms and the teachers' room, but that was not the kind of economy I had in mind. Other architects must have met that kind of trimming of capital costs.

All my correspondents pointed out that they work to a provincial grant of from $15,000 (Manitoba) to $20,000 (Ontario) per classroom. I had thought that the classroom as a unit of cost had disappeared, but it is still there, with all the disadvantages inherent in it as a unit that we were aware of a decade ago.

MR WATSON:

"I speak for a part of the country where the disparity of school costs between Toronto and less civilized centres is great; city costs being twice those of rural centres if what I read is correct."

MR RUSSELL:

"We think that it is difficult to achieve this figure ($15,000) in say a school of six or eight classrooms because the grant formula does not take into account ancillary services, principal's office, teachers' room, etc. Where there is an auditorium, additional grants are made on an area basis, which helps to reduce the overall cost per square foot."

MR DELEAN:

"Working with a budget of $20,000 per classroom in northern Ontario, we claim that to meet this figure the school must not cost more than $12.00 per square foot."

MR MICHENER:

"In Manitoba, the $15,000 figure includes land, furnishings and architects' fees, printing of debentures as well as capital costs. With what is left, the architect must build the school to cost not more than $11.00 per square foot. The unit figure has been unchanged in seven years."

Question 8

Hanging Coats.

What methods do you recommend?

This is a vexed question not entirely dependent on money. That is to say that the most expensive doors and hardware may bruise fingers if not used properly, and closed cupboards will smell if not mechanically ventilated.

MR SECORD:

"By using three rows of hooks with an open shelf above, our maintenance crews find this to be 100% maintenance free. We find special multi-folding doors are expensive to maintain, trap odors and are one more place pupils may jam fingers, etc. At one point we used open coat rods with heavy fixed hangers, but found hooks are the only things for lazy pupils."

MR HELMER:

"We have tried a few solutions to the problem, utilizing the corridor partition with access from either the classroom or the corridor. The alcove-hanging in the corridor appears to be, by far, the most sensible, but requires more co-operation from the staff to make it work well."

Some architects whose advice I sought are using Modernfold doors in preference to other types. They are light and less expensive than some other folding doors and danger of jammed fingers is slight. Only Mr Secord came out flatly for hooks and a shelf.

We are, of course, discussing elementary schools. The high school has by custom the locker in the corridor, and its suitability is never questioned.

I am told by Mr W. E. Fleury that the Dutch use an alcove arrangement in the corridor with coats exposed — the same, presumably, as that for which Mr Helmer speaks with such confidence.

The only disadvantage that I can see is the exposure of everything to the coat thief whose presence is felt in North America from the kindergarten to the Faculty Union of a university.

It is also obvious that there is a standard almost of luxury in the urban areas (perhaps in East Canada particularly) in matters of ventilation, heating, hardware, and finishes in contrast with rural areas where hooks and a shelf will still serve their purpose.

MR RUSSELL:

"In this area in elementary schools, the coats are hung in wardrobes, almost always at the rear of the classrooms. We built one school with square classrooms and with the wardrobes against the corridor wall. We believe the square classroom is a better shape, and we saved money by reducing the length of the corridor and window wall. However, in elementary schools they wish to have a blackboard against the corridor wall, and for this reason we have not done it again."

Question 9

In what area of the school cost do you think some savings could be made — assuming agreement with the Board? i.e. (a) mechanical, (b) structural, and (c) finishes.

This was a field of inquiry where my dedicated school architects had much to say. More than one says "Mechanical installations could be cheaper, but the answer here lies with the consulting engineers, who tend not to be as concerned with the problem of economy as the architects and owners."

MR SECORD:

"More important in cost reduction, I think, is a revamping of NBC, and Fire Marshal demands re minimum requirements. It seems to me that the Fire Marshal's office is more interested in protecting the fire fighters than the pupil (one hour and two hour rating on exposed steel). Why not let the insurance companies worry about fire resistant qualities (this is a pet peeve with me) as they seem to base their practices on some 100 year old fire traps. Every effort should be made to protect the pupil, but why spend excessive amounts of money protecting a building, in cases where cost is such an important factor?"

MR PAGE:

"(a) Time was when heating was not zoned. After World War II, separate north and south, and east and west zones were required. Now, individual room control is expected and is certainly a great improvement, but much more costly.

"(b) Precast concrete beam and column structures have become common. In my opinion such buildings look well but are probably more costly. They make for faster construction.

"(c) The first schools this office did following the war had concrete or slag block lining of gym walls. No self-respecting Board is satisfied with such display of penury now; they want glazed structural tile. Exposed structural members of gym ceilings are unpopular. A proper ceiling, providing acoustic correction, is wanted. The extra expense is considerable. Secondary schools are expected to be supplied with large parking lots, surrounded by chain-link fencing and with quarter-mile cinder tracks enclosing well graded playing fields. These items cost plenty."

MR RUSSELL:

"In our opinion finishes can be reduced to a minimum and do not need to be expensive. Concrete block carefully laid up can be quite handsome. Although the extra cost of laying up such a wall would practically pay for the plaster on a block wall laid up for plaster. We did one school with a steel joist and wide plank roof and left the joists exposed. We thought it looked all right, although some members of the School Board had reservations."

MR MICHENER:

"I am concerned that, with rising prices, there will be too great a concern with costs, a consequent lessening of quality – and an inevitable unfortunate reflection on the architectural profession."

MR DELEAN:

"(a) Mechanical services are often outrageously high in schools. There are no limits to the amount of controls and comfort that one can create, nor to the limit of foot candles. We keep our mechanicals at between 22% to 25%. If it exceeds that proportion, cuts are made.

"(b) There must be ways to cut down costs structurally. The only way to be sure, however, is to tender a job two ways, in steel and in precast concrete, for instance. The cost of the structure depends so much on the supply and demand theory that you can never be sure. Bearing wall construction does save money, I think, but it also limits flexibility. In our very small schools (two or three classrooms) we use an all wood structure, built-up wood columns wood joists spanning the classroom width. It is very economical. We have used regular steel joists with steel frame, steel frame with long span steel deck, steel joists with pre-cast lightweight roof deck and bearing wall. All these systems have done a good job, but the only one we have found cheaper than the others is the pre-cast lightweight roof deck on exposed steel joists carried on bearing walls at the corridor.

"(c) The fire marshal's requirements add a bit to the cost with his requirements of fire retardent paint and mineral tiles. This is all to the good. Hardware is a very expensive item and is kept strictly within our allowance of approximately 1¾%. This item mounts up quickly unless it is carefully chosen."

MR PARKIN:

"As far as structure is concerned there are many types and methods of constructing schools. The most common and perhaps cheapest is the bearing wall with steel joist construction. This is the one which gives us the monotony in our school buildings today. Exposed structure and exposed bearing walls are very common and it is doubtful that cheaper structural methods can be found. This does not mean, however, that architects should not investigate new and different methods of construction because many times a new idea does not mean an increase in the cost but does mean a change in appearance."

Question 10

What is new in materials – exterior, interior?

We had the experience once in my own office where we recommended a new method of construction for a wall in the use of prefabricated metal flooring

MR DELEAN:

"One of the more interesting new exterior materials is the precast insulated concrete panel. Beautiful surfaces, rough or smooth and in colour, are available. The nicest thing of all is that they compare favourably in cost with a brick spandrel. We are using an inexpensive form of curtain wall on one school. It is really a wood frame, covered with aluminum, with aluminum double hung windows and baked enamel spandrels. We used it primarily for ease and speed of erection during winter construc-

sections that had previously been successful on floors. It was discouraging to find that while the section went up the full height of the wall and provided insulation and an inside and outside finished face, the cost was more than twice bearing wall with strapping, plaster and paint. Changes of that kind come slowly, but several suggestions were offered.

tion. The wood frame is exposed on the inside so that condensation is not a problem. We have supplied a long all-masonry wall at the covered play areas so that the children can play 'alleys' there rather than off our porcelain panels.

"Metal windows have also come into the school picture very strongly. There are so many different types and makes, and such a variation in cost that an architect has to be very careful in the selection. The good ones are worth including in any school. One of the more useful products introduced for interior use is the regular concrete or haydite block, glazed one side. It is very useful for corridor and washroom use and can be easily used in conjunction with regular painted block surfaces."

MR MICHENER:
"A number of our more recent schools have used a curtain wall formed of wood mullions at eight feet on centre with a horizontal vision strip and a cement asbestos board and styrofoam sandwich panel above and below the window. The cement asbestos board is surfaced on the outside with a plastic paint."

MR RUSSELL:
"The trouble with new materials seems to be that they almost always cost more than the old ones. The cost of a good curtain wall for instance is more per square foot by far than cut stone. Aluminum windows have, of course, practically replaced wood windows. For solid portions of the wall, brick still seems to be the best answer, or sometimes it is necessary to use areas of metal lath and cement stucco which could be painted in interesting colours.

"We have just received tender on a high school which is to be built on a split-level arrangement with the main entrance, offices and auditorium at a level just above the ground with the classrooms half a storey up and with the shops, domestic science rooms, etc., below on a supported floor with crawl space under. This building is of steel frame with masonry walls, steel joists second floor and roof. It has a total area of 43,138 square feet. Its cost will be $409,500.00, including architect's fees, with a square foot cost of $9.74. In new suburban areas where the landscape is covered with one-storey houses, it seems to us important that the school should not be too big in scale. A two-storey high school built entirely above the ground would loom up pretty high in such a situation. We have under construction a high school in a new suburban development which is based on contiguous hexagonal forms in a split-level arrangement and sloping roofs with wide eaves. The classrooms take on peculiar shape and the cost per square foot is higher than in a more conventional arrangement. We have mental reservations about its architectural quality. However, when the School Board saw the sketches that was what they wanted. At least it will be of a scale in keeping with the surrounding houses."

MR HELMER:
"Old stand-bys still best and most satisfactory."

MR PAGE:
"Precast decorative structural panels are being used more and more. I like them but realize they cost more than brick. Enamelled steel spandrel panels are practical and the colour stands up well. I am trying out some vertical plastic louvres on a south elevation. Green coloured metal chalk boards are good. No trouble like that experienced with the green glass boards of a decade ago."

Question 11

Any other items that interest you would be of great interest to me.

MR PARKIN:

"Generally speaking, ten years ago there was a strong movement amongst architects and School Boards to design schools of one-storey, particularly elementary schools. This is still the case for the majority of schools being built today, but we can see a tendency to two-storey elementary schools in suburban areas. The cost of land is, perhaps, the main factor in this trend along with the fact that many of the schools being planned are larger units. Once a school passes the ten to twelve room size, it is more economical to build it on two floors than one. As far as the secondary school is concerned, there were many that were built on one floor throughout the province in the last ten years, but the trend now is back to two and three storeys. Again, the size of our high schools is getting larger and land is increasingly expensive. We think this will continue to be a trend for a number of years. The trend continues to area School Boards consolidating their one-roomers into larger centralized schools.

"Students are then 'bussed' to these schools. In this way, they can provide a graded school system and offer more in the way of additional features such as playrooms. The Department now gives a grant on a playroom and is encouraging the use of these rooms in the elementary schools.

"It might also be interesting to note that we have under construction and almost ready for occupancy a school heated entirely by electricity. There are one or two other smaller units in the province but this, we believe, is the first larger school building to use this method of heating. Not only do we heat the school, but we use the same unit as a ventilator to provide fresh air to each classroom. This is not a cheaper capital cost investment but it is expected to reduce the maintenance costs to some extent. Boards are increasingly aware that schools that are low-cost in the first instance are rarely so in the longer period when maintenance problems begin to mount."

MR HELMER:

"Our greatest concern is the lack of co-operation in mechanical equipment design. We are currently focusing all guns on consideration of glazed wall *vs* limited glass plus electric light. Since most school projects are started late and required for use in September, a method of prefabrication which would facilitate winter construction and minimize site work would be beneficial. The development of a self-contained, 4-classroom unit, which would be the initial unit or an addition, would seem warranted. Most suburban schools add, yearly, a unit of four classrooms."

MR DELEAN:

"One problem that we find in this area, and the same would possibly be true in other Ontario centres, is the problem of the small school of two or three classrooms receiving the same grant of $20,000 per classroom as do the larger ones. It is really no great problem to build a ten or fourteen classroom school for the grants obtained. A two classroom school is a different matter. In 3,000 square feet you must include two classrooms with wardrobes, a teachers' room, boiler room and washrooms. You must also provide for future expansion. On some of our smaller schools, we have to build a good nucleus at the original stage with the grants available. Corridor widths must be kept to a minimum, washrooms are tight, the boiler room is barely adequate.

"I would like to see the Department of Education grant increased to $30,000 a classroom for schools of one to four classrooms where future extensions are certain. Around subdivisions, it has become a bit of a joke. Before one school is completed, another contractor has moved on the job for the new addition."

MR MICHENER (writing of the building program of the next three years): "Unfortunately, neither the profession nor the Departments of Education are ready to take full advantage of the tremendous opportunities for improved school and educational design. In all of Canada the lack of direction in educational policy is evident in school design. It seems inconceivable that our present methods of education will not alter radically over the next fifty years. The lack of concern on the part of all those engaged in school building, with the implications of such possible changes, is regrettable. These problems are of particular concern at the secondary level of education."

MR PARKIN (in a similar vein):
"There is one major plea which we, as a firm, would like to enter, and I know that you have already, editorially, expressed a similar view. A number of years have passed since the original school committee drew up its influential report. The varied recommendations of that committee, which were so visionary at the time, now tend to hamper and restrict the imagination of architects in coming to sensible, sensitive solutions – so fast has been advances in the theory of school design in these late post-war years. If your article might sum up with a plea for the creation of another school committee under the auspices of the Ontario Department of Education, or in any other province, a great service would have been performed. We need new goals to be crystallized and new criteria for design established."

In conclusion, I should like to express my deep debt of gratitude to my correspondents for their efforts to keep this article on the professional rather than the academic level. Mr Michener ends with the wish that this article deal with some of the broader questions of school building policy as well as with the essential technical data necessary for good school building. We must leave that for another time. In the meantime, has it not emerged from this research that a committee should be formed to investigate the field on a broader basis than that of the Ontario Committee of some years ago? Problems of cost, climate, pedagogy, construction and the like, vary so between east and west. Is it not desirable, if practicable, that the committee (if one were formed) should be under the auspices of the RAIC?

Residential Environment Committee Ends Hearings

Has Heard Over 400 Witnesses and Travelled 18,000 Miles



The Committee is seen above during the tour of inspection in Winnipeg. (from the left) A. H. Armstrong, Ottawa, Secretary; James Searle, representative, Manitoba Association of Architects; Ned Pratt, Vancouver; Peter Dobush, Montreal, Chairman; T. B. Pickersgill, Supervisor, Prairie Region, C.M.H.C.; and John C. Parkin, Toronto.

AT THE END OF 1959, the Committee of Inquiry set up at the Windsor Assembly had visited a dozen cities in eight provinces. Now it has completed its local hearings, with those held during January at Vancouver and Victoria, and in February at Ottawa. Officers of the Institute, and especially the architects nominated by Provincial Associations to sit with the Committee, could hardly have been more helpful. To those who have lent large public and private rooms across the country for our sessions, the Institute as a whole is indebted. Your Committee has taken evidence from over 400 Canadians, some speaking from their personal experience, others appearing for large bodies of opinion.

The first gauge of what an inquiry can do, about housing areas or anything else, is the number and calibre of those willing to volunteer information. We have covered some 18,000 miles; at every point the Chairman had to ration out twenty minute hearings to good people ready to testify for an hour or two. This is but one ground for our belief that Canadians do care considerably about the look of their surroundings; there are other grounds.

If apathy about our environment prevails, why should the producers and purveyors of new housing be so apologetic about their goods? Yet repentant they seemed to this Committee, and apprehensive lest tomorrow somebody would build a little better and push today's subdivision right out of the market.

They have good reason. The consumer has been learning to discriminate about his dwelling since the war. Many consumer groups reflected to us a keen sense of disappointment about what the housing dollar will buy – too little physical space and far too little psychic enjoyment. A hissing sound of protest against suburbia is quite audible as we play back our tape recorder.

But these were only a few: what about the wider public? Newsmen print, and broadcasters voice, what they believe the public will follow with interest. If our hundreds of informants had been mere cranks, it would be hard to explain why the reading and listening public got several inches of type and a good deal of station time for every brief filed with us.

Of course our contributors were not crack-pots; more typically they are ardent lovers of cities, ready for the sake of that affection to think hard and travel far. A visitor like the Housing Convenor of the National Council of Women, might speak for thousands unseen; in her case, for those housewives who felt so strongly about the district where they live, that they dropped their Christmas wrapping and baking to fill out a questionnaire for this Inquiry. Another was a sociologist, bringing before us the fruits of years of study of the world's cities, some of them as complex now as Canada's cities will be soon.

The members of your Committee accept findings on which such specialists are generally agreed. On the other hand, in recognizing and resolving design problems, the architectural profession is expert in its own right. That is why architects were asked *to study the factors affecting the design of the residential environment.* We must be allowed a few more weeks to set out in some order the most cogent of these factors, as they seem to us. But we can now record this impression: Canadian cities are ignoble and ugly because it is *nobody's job to design them.*

The wires are put above the earth, and the pavements are put upon the earth, and the pipes are put beneath the earth; but there is no-one to see it all together and say that it is good. One phrase kept coming out in evidence to describe what fails to happen to our cities: that phrase was *total design.* If all the things that go into a neighbourhood are to be placed with an eye to the total effect, then obviously some trained and responsible eyes must anticipate and approve what that effect is to be.

This must do for the present. We have four hundred foolscap pages of summary evidence and a five foot shelf of briefs to digest. These have come from every conceivable kind of person and interest. Roughly speaking, one-quarter of our contributors were 'producers' (land developers, realtors, housebuilding contractors). Equally numerous were spokesmen for 'consumers' (women's clubs, professional students of the householder's mind and its manipulation, churchmen, educators, editors, trade unionists and the like). A third quarter of the evidence stems from government and public utility officials and their planning and engineering advisers. Finally, our fellow architects, officers of lending institutions, members of elected bodies and other smaller groups completed the roster.

We must now try to reward for their pains and confirm in their best enthusiasm a host of friends: the hundreds who fed the study with data, the Government of Canada as participant under the Housing Act, the Institute as sponsor and our professional colleagues. This we can do only by setting down as simply and clearly as we can what we have to impart. Before that is done, we may well have to ask still more help from our fellow architects. A first request to Secretaries of Provincial Associations is now being dealt with. Our experience in the past eight months gives the Committee of Inquiry every reason to be optimistic about the profession's and public's interest in seeing this task through to the finish.

A.H.A.

Conversation with Casson

Dave Brock

During his recent lecture tour of Canada, Sir Hugh Casson addressed members of the AIBC at the Architectural Center in Vancouver. Dave Brock, well known West Coast writer and TV commentator, recorded for his "Jot-book" the following lively extracts from Sir Hugh's talk.

CITIES should have a centre and an edge, each recognizable as such by strangers.

A city dweller should LIKE cities. He should be in favor of making cities nicer for the right reasons . . . not for prestige, as the mayor favors it . . . not for speed, as the engineers do . . . not as monuments for the local architects.

A city's atmosphere is not all controlled by architects . . . its noises and smells, for example.

In North America the individual's right to do what he likes is carried too far . . . it is too easy for him to get away with an offence to a whole community.

The biggest disappointment, to a visitor from the Old World, is not that the New World makes different mistakes but that it makes the SAME mistakes as the Old.

North America has the best buildings and the ugliest towns.

Vancouver has not enough urgency yet, about cleaning things up, and there is not enough stopping to look at the place and see what it really does look like.

What people will remember of your city is the *look* of it.

There is a half-hearted ugliness here, a kind of three-dimensional litter.

It is simply untrue to say that you can't clean up the bad spots until you have an inner cleanliness. Ugliness on the surface is not just a symptom, it is a disease itself.

On the physical side of ugliness, you get inconvenience, and from physical causes you get psychological things like anger, defeat, sometimes delinquency. On the purely psychological side, you get people thinking beauty is unmanly. Men will reject curtains in their offices, they will avoid the art gallery etc., because they feel they would be sissies. This feeling is very strong in commercial centres. There is a puritan idea that to enjoy yourself is sinful. (Casson grew up thinking he must not sit in a soft chair or read a novel before lunch. The Anglo-Saxon resistance to pleasure . . . he once wanted to read a book on this, but its title was the word PLEASURE, and before taking it off the library shelf he looked round to make certain no one saw him.)

The motor car is now outmoded. As for freeways curing traffic, they seem to cause it!

A citizen is a man on his feet, not a man in a car.

All movement is intoxication, and car-drivers are not only intoxicated but cross.

By all means teach children the value of a good visual environment, but you can't wait till the public has good taste . . . you must be very firm about taste, and not too ready to let the public feel it has any right to be the final judge of taste. Don't be shy of your own training in these matters. Mind you, many matters of taste are really questions of common sense.

Learn or re-learn the use of your eyes . . . they don't need a university degree.

To use your eyes, walk.

In the old days, men in cities were seeking safety from the jungle without. Today the jungle is within the city and they seek safety outside its walls.

Find out what your city's personality is, and then enrich that.

Find out what the existing laws are and what they will permit . . . there may already be laws against billboards, etc., which only need to be enforced.

In taking thought (and then taking steps) about your city . . . find out what its personality is. Don't get bogged down in details with one expert for each detail and the sum of their labors still awful . . . try to be shipshape, remembering that a ship is lucky to have a common visual unity between all her parts, and each of her parts has fitness.

Care what your city looks like. Sansovina, around 1500, said "all towns are for the safety and convenience of the citizens, and for the great surprise of strangers".

Use your eyes first like a bird, then like a critic, then like an artist.

Study towns everywhere.

Don't be bamboozled by false values . . . for example, the sanctity of precedent, or the absolute demands of traffic. Always distrust any man who begins: "Nobody could love Vancouver more than I do, BUT . . ." . . . he's always about to do something terrible.

Use television to show how hideous things are.

Does your guidebook mention the look of the shops? If not, it may be a poor book and show a poor civic attitude, not to care. Or the shops may be poor.

Do your mayors and their councils value commerce above all else, or size above all else, and do they use a stock solution for everything?

About the mess of wires overhead, "Artists would like it. Paul Klee would have loved it. But you mustn't trust artists in these matters . . . its their fun.

A pedestrian should have more rights. He should have places to walk about between buildings . . . a square, a plaza, a piazza . . . he doesn't get much in America. A crossroads makes a poor city centre. You should close off some streets . . . create little squares.

What will a freeway system do to Vancouver? It will BLAST it.



Philosophy . . . Casson was describing how he toured China and Siberia with the Professor of Philosophy from Oxford, and to while away the long winter nights he would annoy the philosopher a lot by continually telling him of how he (Casson) overheard two London charwomen on a bus. One described her horrible misfortune, and the other said "You will just have to use philosophy, dearie, and don't give it a second thought".

Symbols . . . Casson said that while it is quite true that kids and grown-ups are turning from reading to following endless strips of little pictures, these pictures may turn to hieroglyphs and ideograms and we'll be right back to writing again!

Planners are Boy Scouts with a power complex.

Casson said the Festival involved a good deal of failure, partly through oversights and lack of experience . . . such as not providing an envelope of space to set off a statue . . . but partly through *the nature of a festival building which must be* "a *larky* building . . . it must say to you 'Look, no *hands*!' And that makes for a hell of a building, architecturally."

He mentioned knowing Dali fairly well. Somebody asked, "How old is Dali?" and Casson said "Oh, the usual." ("about 50".)

Rule Number One in architecture is to build the inessentials first, because they'll always have to find money later for the essentials.

He told us what he said was a well-known story, about a colonel's chit or flimsy or confidential report on a junior officer: "It is my painful duty to remark that no men will ever follow this officer, except out of curiosity."

He mentioned a well-known London architect, who is always extremely thorough and absolutely professional. One night Jimmy and a colleague walked down a street and came across a man in a fit. Jimmy was terribly upset. "We must do something," he said. The pal said, "We must have wood, they always use wood between their teeth. Hand me a pencil." Jimmy took a pencil from his pocket and said anxiously, "Will an H.B. do?"

He said that to stress the absolute gulf between scientist and artist is often unrealistic . . . "they are both apt to be vain, grubby, and isolated." He added that artists and others, in setting themselves above science, tend to talk admiringly about their own humanism, as if this meant the same thing as humane. "There are two fallacies here. I mean, what's so good about humans? Often enough they are absolutely beastly."

He is a great friend of Osbert Lancaster's . . . both have been editors of the Architectural Review. Together they had been deploring Frank Lloyd Wright's final work, that Guggenheim art museum. *When Wright does make a mistake, he makes it firmly . . . a good big one, and maybe a big good one.*

Wright was quoted to the effect that if the world was flat and you tipped it on edge, the loose stuff would fall down to the edge and that would be Los Angeles.

Casson said that at his Royal College of Art, there is a basic course for everyone, including a compulsory course in LOGIC. It has been going for only a year . . . though he thinks it shows among the stained glass students, who were always the most intellectual and articulate anyhow, so that they needed the course least. The painters are always the silliest and least articulate. (Naturally there are exceptions.) When asked "Don't you think we are breeding a whole generation of the inarticulate? In every field, not just painting? On this continent anyhow, if not in England?" He said "Oh yes. In England very much so. It's all just part of the beatnik measles, maybe. They think their inarticulateness is not only a badge but actually a form of communication . . . a language. Talking of symbols . . . a friend of mine was asked to design a big symbolic thing for one of the Oxford colleges, and they asked him to go up for the dedication. When he got to the proper place at the proper time the gates were shut tight and he thought "My God, this is the final symbol and the ultimate inarticulateness, they have shut me out as a kind of message for me."

He said that in Asia and South America they understand town-planning perhaps better than we do. We want to wipe out the slums. But alongside New Delhi they have left old Delhi, and alongside the new Brasilia (or is it Brazilia?) they naturally didn't have any slum to start with but they are *building* a slum, a place unplanned where any guy can do what he wants to do. So that when you get tired of the cool empty planned spaces, you can save what remains of your sanity by diving into that bubbling ferment. And then, when you get tired of bubbling ferment, back you go into the planned order. Either way it is nice.

Town planning, he said, and town management too, should be done by people who like cities, who like walking in city streets and sleeping in cities. Instead of this, what do we get? Cities bossed and planned by chaps who make a very fast beeline across the town twice a day, to and from their homes away off in some Subtopia.

America had a natural tendency to messiness, because there was so much space. When you'd made a mess you just moved on. But to-day you'll meet a chap making a mess coming the other way!

Le Corbusier

L'Architecte doit résoudre le problème que pose la poussée démographique

Monsieur le président, messieurs: Que vous ayez demandé à l'Ambassadeur de France au Canada de présider à l'ouverture d'une exposition des oeuvres de ce grand architecte, entre les grands, qu'est Le Corbusier, cela se conçoit aisément. Les ambassadeurs sont des personnages éminemment officiels, éminemment représentatifs par définition, le plus souvent abondamment décorés, et parfois même, par chance, raisonnablement décoratifs: il n'est pas trop difficile au représentant professionnel d'un grand pays de "représenter" celui-ci, de représenter son gouvernement, son administration, et même telle ou telle éminente corporation — voire celle des architectes, mais bien entendu à la condition que ce soit sans mot dire.

En revanche, demander à ce personnage propre à tout, et par conséquent bon à rien, de "présenter" un grand artiste, ou de présenter son art, ou son oeuvre, Messieurs, c'est une moquerie. Et c'est une moquerie assortie de circonstances fort aggravantes lorsqu'il s'agit de faire cette présentation devant un auditoire de maîtres, dont chacun serait en mesure de la faire lui-même avec la plus haute compétence, et le plus grand talent.

Pourtant, Messieurs, vous l'avez voulu — ou du moins, M. André Blouin l'a voulu — et me voici devant vous. Mais ne vous y trompez pas: je ne vais pas tomber dans le piège qui m'est tendu. Je vais me tenir fermement en dehors des limites de l'épure dans laquelle M. Blouin a pensé m'enfermer. Je ne vais pas *vous* donner la comédie, et *me* donner le ridicule, de faire devant vous de la critique architecturale, même purement laudative! Je vais vous parler en profane, et même en ignorant, donc avec le naturel le plus parfait — et vous livrer quelques réflexions d'homme de la rue — c'est bien le cas de le dire — d'homme de la rue qui passe entre les maisons que vous bâtissez et qui, peut-être, s'il a beaucoup d'argent et de la chance — trouvera le moyen de loger sa couvée dans une de vos constructions.

D'abord, laissez-moi vous féliciter très sincèrement d'avoir choisi la profession que vous exercez. C'est une des plus belles, et aussi une des plus satisfaisantes — si j'ose ainsi m'exprimer.

Une des plus satisfaisantes, parce que, plus que la plupart des hommes, vous pouvezlégitimement éprouver le sentiment de "créer"; parce que, mieux que la plupart des hommes, vous *voyez* votre création. Un grand architecte laisse derrière lui, en *réalité,* ce qui, pour les autres, s'appelle seulement par figure de rhétorique, des *"monuments"*. Et ceci ne s'applique pas seulement à l'auteur des Pyramides d'Egypte, de la Tour Penchée de Pise ou bien du Panthéon ou du dôme des Invalides. C'est vrai de la Tour Eiffel, de la gare de Milan, du viaduc de Vic-sur-Cère, de l'Empire State Building ou du George Washington Bridge; c'est vrai encore d'une belle gare maritime, d'un musée d'art moderne, d'un marché central; c'est vrai d'une église de campagne, d'un grand immeuble de rapport, d'une villa contemporaine originale. Vos oeuvres sont debout; elles sont permanentes; et elles sont *utiles;* elles jouent un rôle économique, elles remplissent une fonction sociale. C'est beaucoup plus que ce que l'on peut dire des autres arts.

Et je dis que votre profession est une des plus belles parce que, si vous me permettez une excursion dans le domaine spirituel, elle participe de manière plus tangible, plus évidente que la plupart des autres, à l'oeuvre divine. Quand les hommes cherchent à exprimer en Dieu, la force créatrice, ils parlent volontiers de lui comme du "grand architecte". En votre qualité d'architecte, vous avez, d'après le livre des Proverbes, la Sagesse pour compagne.

Rappelez-vous:

"... Quand Dieu n'avait pas encore façonné la Terre,
Avec ses fleuves et ses continents,
Lorsqu'il disposait les Cieux, j'étais présente;
Quand Il entourait les abîmes de leurs barrières définitives,
Quand Il établissait le firmament,
Quand Il équilibrait les sources des eaux . . .
Quand Il posait les fondations du Monde,
J'étais à l'oeuvre auprès de lui.
Chaque jour en Sa présence, à jouer dans l'univers,
Et c'était ma joie que de vivre avec les enfants des hommes . . . "

Oui, Messieurs, la Sagesse est la compagne de l'architecte. Quel métier peut s'enorgueillir à tel point, d'un pareil patronage?

Et notez bien encore que vous exercez ce métier en un temps exceptionnellement propice. Tous, ou presque tous, vous avez les meilleures chances de "faire du neuf". Dans les vieux Pays d'Europe, cette chance est assez récente — et elle est due en partie aux terribles ravages des deux guerres mondiales. Il a bien fallu reconstruire ce qui avait été détruit — et pendant qu'on y était, on a modernisé, agrandi, inventé des formules nouvelles.

Mais à la veille de la Grande Guerre de 1914, bien rares étaient les architectes qui avaient, en France, par exemple, de grands travaux origimaux à exécuter. Dans un Pays riche mais tranquille, éminemment bourgeois, économe, et pourvu de peu d'enfants, les occasions de construire des immeubles intéressants étaient loin d'être aussi nombreuses qu'aujourd'hui. Beaucoup de jeunes, issus de l'Ecole des Beaux-Arts, à qui l'on avait appris à dessiner des palais et des cathédrales, se nourrissaient fort maig rement — intellectuellement et matériellement — d'histoires de feux de cheminée et de querelles de murs mitoyens. Tout le monde n'était pas M. Eiffel!

Mais aujourd'hui, dans les pays neufs — comme l'est, à tant d'égards, le Canada — même dans un vieux Pays, mais rénové, comme la France, les architectes ont du pain sur la planche. Car s'il a fallu reconstruire ce qui avait été détruit, il reste encore à remplacer ce qui a vieilli, il faut loger le croît

Causerie faite par son Excellence Francis Lacoste, ambassadeur de France, aux architectes de la province de Québec, à l'inauguration de l'Exposition Le Corbusier à Montréal

d'une démographie exubérante, et il faut créer des habitats nouveaux pour de nouvelles formes de vie.

Il faut, en effet, après la réparation des ravages de la guerre, prendre en considération l'usure des immeubles de rapport des grandes villes, qui ont maintenant cent ans et plus, et qui n'étaient point bâtis comme les cathédrales, ou même les châteaux et les fermes, du Moyen Age; il faut tenir compte des besoins d'une nation qui a brusquement retrouvé une fécondité telle qu'en 1970 elle aura l'âge moyen le plus jeune d'Europe; il faut, enfin, faire face aux exigences de l'industrie moderne et de celles de l'homme moderne, de la femme moderne. Tout ceci produit une demande impérieuse, pressante, exaltante.

Mais aussi, Messieurs, quels problèmes se posent, en ce moment même, ou, plutôt, dès ce moment, à votre profession!

Je ne songe pas seulement à l'insuffisance des capitaux disponibles pour vous permettre de répondre à ces besoins au fur et à mesure qu'ils se manifestent. Vous pourriez d'ailleurs dire que, si vous regrettez cette insuffisance, si même vous avez parfois à en souffrir, ce n'est pas à vous qu'incombe la tâche d'y porter remède. C'est affaire financière, affaire politique, affaire du Gouvernement, qui vous *affecte* beaucoup, mais ne vous *concerne* qu'indirectement.

En revanche, les problèmes que pose, non seulement aux hommes d'Etat, aux économistes, et, à terme, aux agriculteurs la croissance extraordinairement rapide de la population dans le monde – ces problèmes vous touchent de la manière la plus directe.

Le public, lorsque son attention est attirée sur ces questions, y pense d'abord en termes d'alimentation. Où trouver, où et comment produire, assez de vivres pour ces vagues débordantes d'humanité nouvelle, que l'on constate, et que l'on prévoit comme on prévoit les crues des fleuves en périodes de pluies torrentielles? C'est, en effet, une question qui commence à devenir angoissante – encore qu'elle ne soit pas nouvelle. Il y avait déjà des famines dans l'Antiquité, alors que la population du globe n'était pas le dixième de ce qu'elle est aujourd'hui. Et aujourd'hui, s'il y a toujours des famines en Asie, il existe des montagnes de blé, de beurre, de vivres de toute sorte, que les silos, les greniers, les bâtiments d'emmagasinage de l'Amérique du Nord ne parviennent pas à écouler. On envisage des sources d'alimentation nouvelles, de meilleures méthodes de financement et de distribution . . .

Mais l'habitat?

Réfléchissons un peu à ce facteur d'une si grave importance pour tout le monde, mais dont l'impact le plus immédiat peut-être frappe votre *profession* – non pour l'affaiblir mais au contraire pour en relever l'importance, et pour la stimuler.

D'après les hypothèses les plus savantes, la population totale du globe, en l'an 10,000 avant notre ère, aux temps paléolithiques, aurait été de quelque 10 millions d'hommes – chasseurs, pêcheurs, mangeurs de fruits et de racines. Puis les hommes découvrirent l'agriculture, probablement vers la même époque, en des régions différentes du monde. En même temps, ils construisaient les premières villes. Ce fut le temps des civilisations de la Mésopotamie, de l'Egypte, de la Chine. Et la population du monde augmenta cinqfois. Entre le début de ces civilisations, et le début de l'ère chrétienne, elle augmente *encore* cinqfois: de 10 millions elle était passée à 50 millions; de 50 millions elle passait, au temps du Christ, à deux à trois cent millions.

Elle n'augmenta pas très vite par la suite. On estime son chiffre, au début du XVIIIème siècle – donc quelque deux cents ans après la découverte du Nouveau Monde – à environ 500 millions. Elle avait, par conséquent, mis près de deux mille ans à doubler. Mais aujourd'hui, son chiffre est supérieur à 2 milliards et demi. Elle s'est donc, en deux cents ans – les deux cents dernières années, multipliée par *cinq*.

C'est fantastique! Mais le mouvement, en ce moment même, se poursuit et s'accélère. Compte tenu des décès, le chiffre quotidien des naissances est tel qu'il y a chaque jour 100,000 hommes de plus sur la Terre. Si ce mouvement doit, comme c'est plus que probable, continuer, notre nombre va croître régulièrement de 40 millions par an, ce qui fait 400 millions en dix ans, et plus de deux milliards en cinquante ans! Autrement dit, si rien ne vient changer ce rythme, nous allons encore doubler en un demi-siècle, car la progression est, forcément, plus qu'arithmétique: en l'an 2,000, nous aurons dépassé le chiffre de 5 milliards d'hommes à la surface de la planète!

Comme nous parlons, ce soir, d'architecture – je ne vais pas vous demander de quoi ces cinq milliards d'êtres humains vont se nourrir. Je vais encore moins chercher avec vous, à savoir ce qui se passera lorsque nos arrières-petits-enfants seront dix milliards!

Mais je vais vous demander comment vous allez les loger, comment vous, architectes, allez construite, sinon leur maison – terme évidemment "obsolescent" – mais leur "home" – le lieu de leur existence "au repos"; et comment vous, urbanistes, allez construire leur cités; comment vous, ingénieurs de régions, allez organiser leur vie communautaire-en comprenant dans ce terme leur vie individuelle, leur vie familiale, et leur vie de société – c'est à dire leur existance "domestique", au "foyer"; leur travail, et leur repos, c'est à dire les vacances, la vie de plein air, l'espace! Quel espace va-t-il nous rester?

Si je vous le demande, notez-bien, ce n'est pas avec l'intention de vous le dire.

C'est tout simplement l'introduction que je vous ai promise à la pensée de Le Corbusier, au génie de Le Corbusier – et à ses oeuvres – qui vous regardent sur tous ces murs, et qui ont offert au monde l'une des premières – peut-être la première tentative de réponse aux dramatiques, aux angoissantes questions que je viens d'évoquer.

Viewpoint

"Is plagiarizing
the modern master inescapable
in the evolution of
contemporary architecture?"

I cannot see how plagiarizing could contribute to the evolution of any style of architecture at any time now or in the past. The borrowing of ideas to keep in or ahead of fashion has probably always been one of the more reprehensible practices of the architectural profession. But then those who follow this practice are never the architects who contribute to the evolution of architecture – they would rather arrest it.

That ideas cannot be lifted from a design and applied in another different design is inherent to the process of design. Irrelevant matter applied out of context to the subject is no longer design, it is rather cooking. There is no doubt that many of us in the profession do make better cooks.

However all designers go through periods of being influenced as Wright himself acclaimed his master. Important ideas of guiding spirits take time to re-emerge transformed. It is part of the designer's evolution. He is often not aware of these influences and will work in spite of them in the painful emergence of his daemon design.

Wright was justifiably embittered by the blatant appliqué of his forms by his contemporaries. He saw these forms mongrelized beyond meaning – his noble forms become corner windows, clerestoreys, strip windows, planting boxes and the other herrifica of "modern architecture" that persist in bland impotence with us even today. But it is significant that he never hesitated to advance his ideas amongst his followers and praised their work when they showed comprehension of his ideas. He was, after all, the advocate of disciples.

Arthur Erickson, Vancouver

Plagiary implies not only lack of originality but deceit as well, and my reply to the question asked can only be an emphatic "no".

Certainly, all persons are not endowed with equal abilities and, while architects represent, collectively, a group in our society with above average creative abilities, the truly advanced and significant contributions to architectural forms and philosophy are made by a few persons with more highly developed sensibilities and powers of concentration.

This does not preclude any worthwhile contributions by the remainder of the group. The most usual approach is one that begins in our early professional training of assessing the work of the important innovators and then choosing the idiom which we find most satisfying emotionally and which gives us mastery of a working vocabulary of forms. With this as a point of departure, individuality begins to assert itself, resulting in a more personal style with recognizable characteristics.

There are many examples of this type of developing maturity. Philip Johnson, Hugh Stubbins, Elliot Noyes, and John MacLane Johansen have shown, in published examples of recent projects, that they are evolving styles that no longer emulate as closely the "modern masters", Mies van der Rohe and Walter Gropius, whom they quite openly followed and admired in earlier years.

In conclusion, I would say that the apparent literal adoption of forms is not inherently bad, so long as it represents progress in an individual's strivings towards truth and maturity. Misrepresentation of the source of inspiration to others or to oneself, however, should always be condemned.

D. G. Bittorf, Edmonton

Frank Lloyd Wright was perhaps somewhat justified in his complaint against those who remorselessly plagiarized his work. It is a commonplace phenomenon today, to find architects "lifting" virtually whole works designed by other men from architectural publications and journals, modifying each to fit the exigencies and intractable differences of their own particular client. This process can usually be counted infallible for the butchery of any original concept, for the simple reason that those resorting to this expedient, are not activated by an inner momentum which invests a real work with life, the power to communicate feeling and to move men's hearts to wonder. The uncreative in society all too often succumb to the pressures of a money making complex, and the real motivation is primarily to seek the quickest way by which to secure an objective return. These are the takers, rather than the givers, who haunt our profession today.

Plagiarism is a dangerous and pernicious practice, because in however a subtle guise, it always involves theft. It tends to deteriorate character and the values of those who resort to the practice, and without question, it depreciates the impact and the force of the original concept. The implication is simply, an attempt to short-circuit the dedication and the effort which is an integral part

of the creative process, involving an idea derived from a level of inspiration. Plagiarism as practised by a large part of the architectural profession today, is grand theft, and a subtle prostitution of the creative art.

On the other hand, it is the cosmic function of an accomplished master in architecture to create the new original archetypal forms required for the full expression and maturing of the consciousness developing in each specific age of a civilisation. It is essentially his task to establish environment, and it is his role, pre-eminently, to show how this should be done.

The inevitable consequence in the emergence of new and dramatically exciting forms as they impinge upon other sensitive and creative minds, is to stimulate in man a natural propensity for emulation; bringing men under the power of a stronger influence, until facility is acquired and principles mastered to a point where an artist will create originality in his own absolute right. This represents a sequence of natural learning, and imitation is a part of that process. But there is a distinction, nevertheless, between the uncompromising lassitude of barefaced robbery, and a certain reverence and respect for an acknowledged influence exerted by the stronger reality of a master's work.

Christopher Owtram, Vancouver

There is no real plagiarizing a master of architecture. He cannot be easily analyzed nor can he be easily imitated. But his architectural principles can be quickly recognized and are generally accepted by his fellow architects. His influence is one of stimulation. The honest architect is simply inspired by a master's works and writings. He may use the principles of the modern master to solve the particular architectural problem that he happens to be wrestling with at the time. He may, in so doing, advance the principles and contribute to the evolution of contemporary architecture. He may, by applying new building materials and methods of construction, make a substantial contribution to the evolutionary process.

But this is not plagiarizing. If it were, then Wren might be accused of plagiarizing the Renaissance forms already developed in France and Italy. He brought about great architecture and contributed towards the evolution of architecture. His influence was both immediate and permanent. Today's masters are more vital than those of more remote history. Their work is sought out, studied and unquestionably influences contemporary work. Frank Lloyd Wright represents part of the beginning of contemporary architecture. He developed a new, rich and vigorous form of architecture, particularly as it affected the house. There is no real evidence that designers plagiarized his work. They mostly ignored him in America at the time of his 1914 protest and he had already been recognized in Europe. His influence was very strong there at that time and affected the powerful European development of contemporary architecture in the 1920s. Frank Lloyd Wright continues to be part of the evolution of today's architecture – principally as a means for understanding the contemporary development. Mies, Corbusier, Gropius all perhaps are having a more direct effect upon the evolutionary process. Their influence can be seen in some of the finer architecture being designed today, but in such work there is only influence, not plagiarism. This is the history of architectural development. The permanent and dynamic changes of new forms are brought about by the masters in the field – a relative few men. The evolutionary process is carried out by those that follow with understanding and develop the new forms in a sensative manner. How much better than that menace in the architectural field who designs simply to be different. He does not understand nor has he the depth to catch the spirit of the developing contemporary architecture around him. He is the trick guy, the gimmick man, the structural exhibitionist determined to strike off in a new direction simply to be different.

A. Hazeland, Ottawa

The common misconception in architecture is that no absolutes exist in judgment of good from bad. The combination of constituents are many and varied. The final expression must combine all absolutes into a harmonious whole. It therefore, follows that all architecture can be maintained at a relatively high level of performance if adherence to general principles exists.

There is a common denominator in all significant architecture, past and present. The degree of emphasis varies moderately if taken in context with the time of execution. It must be clearly remembered that architecture is an "evolutionary" art based upon human needs and therefore all significant work has expressed these needs at all periods.

Plagiarizing would become an extinct factor if basic tenets were maintained. It is only when we drop our guard do we submit to the superficial trappings of style. Little is done by those who we plagiarize that is not common knowledge to all.

It is the primary responsibility of architectural education to discuss significant factors in contemporary architecture which are valid judged against standards that time has proven constant. The evasion of the development of critical standards in education has lead to unbridled plagiarizing. This has been done to fill the vacuum created by timorous non-commital criticism. Fundamental truths are the only answer to what I should like to term "interpretation" of requirements. The instruction in architecture must supply this training in analysis and re-analysis of the composite needs of architecture in order that judgment is possible and constant advancement assured.

No creative activity at the present time suffers from the lack of objective criticism as the field of architecture. We neither desire nor welcome it's analysis. Without a critical climate, immaturity will continue, and borrowed solutions will be the rule, not the exception, on the Canadian horizon.

A. J. Donohue, Winnipeg

FROM THE EXECUTIVE DIRECTOR'S DESK

PLANNING CANADA'S 100th ANNIVERSARY

CANADIANS ARE BECOMING increasingly aware of the architecture around them. An illustration of the trend is Blair Fraser's article "How is Ottawa Shaping up as our National Showcase?" in Maclean's of February 13. This new awareness has been created by several post-war structures of novel design such as the B.C. Electric Building in Vancouver, Stratford's Shakespearean Festival Theatre, and the City Hall in Ottawa.

We expect impressive buildings to rise, during the Sixties, on City Hall Square in Toronto and abutting Montreal's Dorchester Street, which will capture the interest and imagination of people inside and outside the profession.

Architectural contests such as the four Massey Medals for Architecture competitions since 1950, and perhaps the probing of the Committee of Inquiry on the Residential Environment, have brought the profession of architecture out from the wings to the centre of the national stage.

In 1967 – only seven years from now – Canada will observe the anniversary of 100 years as a nation. It is not too early for federal and provincial government leaders to launch broad scale planning for this great event.

Many of our cities – and Ottawa perhaps above all others – will require important new buildings for commercial, civic or cultural use in the years immediately ahead. It has been estimated that $80,000,000,000 of new construction of all building types will be added to our capital structure in the coming decade. However, amid all the complex and intricate planning to put this work in hand, no single plan will carry more importance – or merit higher priority – than the 1967 Centennial planning.

After last year's Assembly at Windsor approved a resolution advocating the formation of a national planning committee, President Maurice Payette in letters to the nine component societies, urged that the services of architects at the provincial or municipal level be offered to local committees. Chapter groups in the larger Associations may recognize the creation of Centenary planning committees in their localities as an opportunity to provide an important and lasting community service.

Those who visited the Festival of Britain, or the Brussels Fair will know that architecture, aided and abetted by the allied arts, is an eloquent spokesman for nations, organizations or individuals who have a conspicuous example of community service in designing, assembling and installing street decorations to mark the British Columbia Centennial.

The Federal Government is conscious of its responsibility since the Prime Minister has stated his intention to form a national centennial committee. He wrote in late 1959 to all Provincial Premiers, and a number of national organizations, including the RAIC, met in Montreal earlier this month to exchange views on how the planning may best be expedited.

The Institute and Provincial Associations will benefit from having the ideas and suggestions of individual architects on this subject. Urban redevelopment schemes directly or indirectly linked to 1967 centenary planning, and pre-supposing participation by architects, could add up to an impressive total.

If members of the Institute agree that any appropriate celebration of the approaching Centenary requires emphasis on the physical development and improvement of Canadian cities, why do we not propose to municipalities and utility companies a seven year program to place wiring underground, to minimize offensive outdoor advertising, to plant more trees and shrubs in urban areas, and develop more park areas.

As a further significant project to undertake, it would not be amiss if the Institute, through the Special Committee on Preservation of Historic Buildings, were to lay increasing emphasis during the 82 months remaining before 1967 on practical measures to preserve and maintain our heritage of structures possessing unusual merit.

When the RAIC celebrates its 60th anniversary in Annual Assembly at Ottawa in late May of 1967 I hope we will be able to say that the profession contributed its full share to making the national centenary celebration a brilliant success.

EN SONGEANT AU CENTENAIRE DU CANADA

LES CANADIENS sont de plus en plus sensibles à l'architecture qui les entoure ainsi qu'en fait foi l'article de M. Blair Fraser sur l'aspect que revêt notre capitale nationale aux yeux du visiteur, paru dans le MacLean's du 13 février. Ce nouvel intérêt a été suscité par plusieurs constructions de conception nouvelle tels l'édifice B.C. Electric à Vancouver, le théâtre du Festival à Stratford et l'Hôtel de ville d'Ottawa.

Nous allons voir s'élever, au cours des années soixante, d'importants édifices sur la place de l'Hôtel de ville à Toronto et le long de la rue Dorchester à Montréal, qui vont retenir l'intérêt de tous, profanes et architectes.

Les concours d'architecture, tels les quatre concours pour l'attribution des Médailles Massey qui ont eu lieu depuis 1950, et peut-être aussi les travaux du Comité d'enquête sur les conditions de l'habitation ont tiré la profession d'architecte des coulisses sur la scène nationale.

En 1967, soit dans sept ans seulement, le Canada va célébrer le centenaire de son régime actuel. Il n'est pas trop tôt pour que les gouvernants du fédéral et des provinces commencent à faire des projets pour cet événement important.

Plusieurs de nos villes – et Ottawa surtout – auront besoin de grands édifices à des fins commerciales, municipales ou culturelles pendant les prochaines années. On a estimé à 80 milliards le montant des immobilisations de tous genres qui seront réalisées au cours des dix prochaines années. Mais dans la planification complexe que ce travail exigera, nul projet n'aura plus d'importance que le Centenaire de 1967 et nul ne devrait passer avant celui-là.

Après que l'Assemblée annuelle de l'an dernier à Windsor a eu adopté une résolution recommandant la constitution d'un Comité national des projets du Centenaire, M. Maurice Payette, a écrit aux neuf Associations membres, demandant avec instance que les architectes offrent leurs services aux comités locaux, soit à l'échelle provinciale, soit à l'échelle municipale. Les groupes locaux au sein des grandes Associations verront dans la création de comités du Centenaire une occasion de rendre à leur milieu un service important et durable.

Ceux qui se sont rendus au Festival de Grande Bretagne ou qui ont visité l'Exposition de Bruxelles savent que l'architecture, avec l'aide et l'encouragement des arts connexes, est un porte-parole éloquent pour les nations, les organismes ou les individus qui veulent transmettre un message. En 1958, les architectes de Vancouver ont donné un exemple frappant des services qu'ils peuvent rendre à leur milieu, en concevant, assemblant et aménageant les décorations des rues, lors de la célébration du Centenaire de la Colombie-Britannique.

Le gouvernement fédéral est conscient de sa responsabilité puisque le Premier ministre a déclaré qu'il avait l'intention de créer un Comité national du Centenaire, et a écrit aux Premiers ministres de toutes les provinces, vers la fin de 1959. Un certain nombre d'organisations nationales, y compris l'IRAC, se sont réunies à Montréal au début du mois afin d'étudier la meilleure façon de dresser des plans.

Il serait profitable à l'Institut et aux Associations provinciales de connaître les idées et propositions des architectes sur ce sujet. Les projets de réaménagement urbain, liés directement ou non aux plans de célébration du Centenaire en 1967, et auxquels participeraient les architectes, pourraient, tous ensemble, donner des résultats impressionnants.

Si tous les membres de l'Institut estiment que la digne célébration du Centenaire exige que l'on mette l'accent sur l'aménagement et l'amélioration physiques des villes canadiennes, pourquoi ne proposeraient-ils pas aux municipalités et aux compagnies de services d'utilité publique de dresser un programme de sept ans aux termes duquel elles enfouiraient sous terre tous leurs fils et lignes, elles amélioreraient la qualité de la réclame à l'extérieur, elles planteraient des arbres et arbustes dans les villes et y aménageraient des parcs?

Autre entreprise d'importance à lancer: l'Institut pourrait, par le truchement du Comité spécial sur la conservation des édifices historiques, s'attacher davantage, au cours des 82 mois qui nous séparent de 1967, à des mesures pratiques destinées à conserver et protéger les édifices d'une réelle valeur que l'histoire nous a légués.

Lorsque l'IRAC célébrera son 60e anniversaire, lors de l'Assemblée annuelle à Ottawa, vers la fin de mai 1967, j'espère que nous pourrons dire que les architectes auront contribué largement à faire de la célébration du Centenaire national, un brillant succès.

Institute News

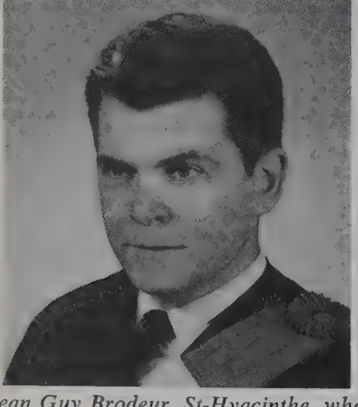
(Continued from page 47)

The 69th Annual Assembly of the Province of Quebec Association of Architects was held in Sherbrooke on January 29 and 30. Members who arrived on the evening of January 28 were guests of the Sherbrooke Chapter at a reception at the Sherbrooke Social Club. The business sessions, which began on the morning of January 29 in the Mayfair Room of the new Sherbrooke Hotel, under the chairmanship of Randolph C. Betts, were attended by more than sixty members. The annual report for 1959 was adopted and new rules for local Chapters within the Association were ratified.

Much discussion centred around a resolution by a group of thirty architects concerning the annual election of officers of the Association, the ethics of the profession, the structure of standing committees, the charter and the rules, architectural promotion and relations between architects and engineers and their respective responsibilities.

The Assembly concluded with a lunch on January 30, at which Dr Ernest Cormier, a past president, was presented by the Association with a suitably inscribed silver tray in observance of his forty years of practise. The speaker at the lunch was Armand Nadeau, Mayor of Sherbrooke.

The 1961 annual meeting will be held in Quebec City.



Jean Guy Brodeur, St-Hyacinthe, who was presented with his RAIC 1959 Bronze Medal at the PQAA Annual Meeting. Mr Brodeur graduated with distinction from École des Beaux-Arts, Montreal in 1959.

AANB Annual Convention

The Annual Convention of the Architects' Association of New Brunswick took place at the Admiral Beatty Hotel, Saint John, on February 5 and 6. A meeting of the 1959 Council was held on the morning of the 5th, followed by an informal luncheon at which Mr E. A. Gardner, Chief Architect, Department of Public Works, Ottawa, and Mr Robbins Elliott, Executive Director, RAIC, were welcomed.

PHOTO BY JOE MICHAUD



New Brunswick Association Council for 1960: top row, left to right, R. Duschenes; D. W. Jonsson; N. M. Stewart, Delegate to RAIC; R. F. West. Bottom row, left to right, H. C. Mott, Registrar; W. W. Alward, President; J. R. Myles, Secretary-Treasurer. Not shown: Y. LeBlanc, Vice-President; C. Roy.

At the first session, minutes and reports previously circulated were adopted quickly. M Yvon LeBlanc, Moncton, and Mr Richard F. West, St John, were elected to Council. By-Law No 11, relating to membership dues and license fees for temporary practice in New Brunswick, was amended after considerable discussion.

Mr Gardner was the main speaker at a dinner on Friday evening. He traced the history of the design and construction of the Parliament Buildings, and described interesting projects in which his Department had been involved recently. He dwelt upon the responsibilities of architectural practice, illuminating his points by interesting examples.

When the general meeting reconvened on Saturday morning, the scale of minimum fees, to be charged clients, was discussed. The lien law of New Brunswick was discussed, but no action was decided upon because the matter is under consideration with other organizations, such as the Builders' Exchange. In view of the action on By-Law No 11, a Committee was appointed to study possible revision of the Incorporate Act of AANB. The incoming Council met at the conclusion of this session, and appointments were made to various offices. W. W. Alward continues as President, with Yvon LeBlanc, Vice-President, H. C. Mott, Registrar, and J. R. Miles, Secretary-Treasurer. N. M. Stewart and J. R. Miles will be delegates to RAIC.

Robbins Elliott spoke at the luncheon meeting, on the aims of RAIC and its program. D. W. Jonsson chaired a session in the afternoon. A brief on specification writing was presented by Messrs D. W. Cornish, President, Capital Builders' Exchange; N. Rattenbury, President, St John Builders' Exchange; and G. Franklin, President, Moncton Construction Association.

Special guests at the annual dinner were Mr D. O. Turnbull, President, Canadian Council of Professional Engineers, and Mrs Turnbull, and Mr T. C. Higginson, President, St John Board of Trade, and Mrs Higginson. Mr Turnbull and Mr Higginson both gave brief addresses. Enjoyable entertainment was provided by the Carriden Choir.

Executive Secretaries Appointed By Manitoba and Saskatchewan

Evidence of how the profession is growing is seen in two recent Western Canada appointments: Mr Harold Brett as Executive Secretary of the Manitoba Association of Architects at 518 Avenue Building, 265 Portage Avenue, Winnipeg 2; and Mrs E. O. Hippe, as Executive Secretary of the Saskatchewan Association of Architects at 2426 Hanover Avenue, Saskatoon.

DOUGLAS G. W. MCRAE, FRAIC, has been transferred from the principalship of the Western Ontario Institute of Technology in Windsor to the office of the Technical Adviser, Department of Education of Ontario, Toronto, in the capacity of Assistant Technical Adviser.

DAILY NEWS–FRANK KENNEDY



Newfoundland Association Officers for 1960: top row, left to right, Councillors Frank Noseworthy, William B. Guihan, William E. Brown. Bottom row, left to right, Thomas A. Lench, Vice-President; William J. Ryan, President; Ernest A. Steinbrink, Hon. Secretary-Treasurer.

Annual Meeting NAA

The Annual Meeting of the Newfoundland Association of Architects was held on Wednesday, February 3, at the Newfoundland Hotel, St John's. Elections and presentation of reports was followed by cocktails, dinner and a program of Newfoundland folk songs.

William J. Ryan was elected President, with Thomas A. Lench as Vice-President and Dr E. A. Steinbrink as Honorary Secretary-Treasurer. Councillors are Frank Noseworthy, William E. Brown and William B. Guihan. Frederick A. Colbourne heads the Registration Board, with Cyril J. Congdon and Frank Dove as members. The Public Relations Committee – Wm. B. Guihan, Chairman, L. W. Hopkins and C. J. Congdon – was re-elected.

Robbins Elliott, Executive Director, RAIC, outlined the work of the Institute during 1959, with emphasis on the importance of the *Journal* in that work. Mr Ryan also appealed for more active participation in supplying articles and pictures suitable for publication. Neil Stewart reported as representative of NAA on the Institute Executive Committee. In his President's Report, G. W. Cummings announced that it was hoped that a two-year pre-architectural course would commence in September, 1960, at Memorial University of Newfoundland. It was anticipated that a course in Architecture will be operating at Nova Scotia Technical College, Halifax, by the end of the first two-year period. The immediate past-president had discussed this project with the Dean of Engineering at MUN and with the Minister of Education. It was felt that this accomplishment was the highlight of the year for NAA.

According to the report of the Public Relations Committee, the year had been a successful one. All activities of NAA had been covered by press, radio and tv. Films had been presented; publicity was facilitated for the Committee of Enquiry into the Residential Environment; and some 2,500 visitors viewed the display of Massey Medals for Architecture winners for 1958. Talks had been given at MUN, F. A. Colbourne speaking on "Architectural Design" and W. J. Ryan on "Architectural Services".

Officers of RAIC and AIA Meet at New York

A small "summit conference" in the realm of North American architecture took place at the Century Club at 7 West 43rd Street in New York City on Friday, January 15 when the respective Presidents, Vice-Presidents and Executive Directors of the American Institute of Architects and the RAIC met in a one-day session to discuss common problems.

Present were: John Noble Richards, Toledo, Ohio, President of the AIA; Maurice Payette, Montreal, President of the RAIC; Philip Will, Chicago, Vice-President, AIA; Harland Steele, Toronto, Vice-President, RAIC; Edmund Purves, Washington, Executive Director, AIA; and Robbins Elliott, Executive Director, RAIC.

This is believed to be the first occasion when representatives of the two Institutes have met, apart from annual conventions in both countries, to review some of the issues facing the profession. Topics discussed at the January conference included licensing, education, ethics, public relations, research, relations within the building industry, and a forecast of probable developments in the sixties.

The RAIC and AIA representatives placed considerable stress during their discussions on the desirability of establishing closer co-operation and joint effort between the two Institutes. It was agreed that much can be done to exchange reports and official papers, and to invite participation between the two bodies on standing or special committees.

Representatives decided that the exchange committee representatives and the supplying of reports and papers may take place in the following areas of Institute activity: education, research, licensing, architect-contractor relations, architect-engineer relations, etc.

It was agreed that a joint business conference between officers of the Royal Institute and the AIA should be held annually, and that staff members will hold a preliminary session each year.

Planning Well Advanced for the 53rd Annual Assembly at Winnipeg

James Searle, President of the Manitoba Association of Architects, and chairman of the RAIC 53rd Annual Assembly Host Committee in Winnipeg, reports that plans are well advanced for the 1960 convention to be held at Fort Garry Hotel, Winnipeg, Wednesday to Saturday, June 1 to 4.

A host of architects, and particularly those domiciled in Western Canada, are planning a home-coming reunion at the School of Architecture, University of Manitoba, during Assembly Week.

The 1960 theme is "Professional Responsibility" and a series of seminars will draw participation by well-known North American architects, followed by syndicate discussions on the pattern adopted at Windsor last year.

Basil Spence of London, England, President of the Royal Institute of British Architects, and designer of Coventry Cathedral, will be the keynote speaker.

The Host Committee asks that members start making their plans now to come to Winnipeg in June.

Conference on Church Building

A conference on church building and architecture, jointly sponsored and organized by the Vancouver Chapter of the Architectural Institute of British Columbia and the Vancouver Council of Churches, will be held in Vancouver May 16th and 17th.

Architects and Engineers Meet to Form Joint Committee

As a result of an inaugural dinner meeting between senior officers of the RAIC and the Canadian Council of Professional Engineers held in Ottawa January 7, the two professions are establishing a joint architect-engineer committee at the national level with the following objects:

1. To develop better understanding between members of the two professions.
2. To assist in maintaining and developing proper relations between architects and engineers in the best interest of the public they serve.
3. To provide a means of co-operation on problems which are of interest to both groups and national in scope.

Each profession will be represented by four committee members, one from Ontario, one from Quebec, one from Western Canada, and one from the Atlantic Provinces. RAIC representation will be announced shortly.

The following were present at the meeting: Maurice Payette, Montreal, President of the RAIC; D. O. Turnbull, Saint John, President of the Canadian Council of Professional Engineers; Randolph Betts, Montreal, President, P.Q.A.A.; L. W. Wardrop, Winnipeg, President of the Association of Professional Engineers of Manitoba; Harland Steele, Toronto, Vice-President, RAIC; Guillaume Piette, Quebec City, Immediate Past President of the Corporation of Professional Engineers of Quebec; Gordon Adamson, Toronto, RAIC; A. W. F. MacQueen, Niagara Falls, Immediate Past President of the Association of Professional Engineers of Ontario; Howard Bouey, Edmonton, RAIC; Robbins Elliott, Executive Director, RAIC; and L. M. Nadeau, Executive Secretary, C.C.P.E.

Positions Wanted

British trained architect BA (Hons Arch) ARIBA. Nine years experience since graduation, two and a half years in Canada. Present residing Ottawa, desires change to position with progressive architectural firm. Available one month from date of appointment. Salary by arrangement. (Box No. 100)

Position with opportunity for advancement wanted with progressive firm. Age twenty-seven, married, BS Degree in architectural engineering from Kansas State University. Veteran with four years service. (Box 101).

Letters to the Editor

Editor, RAIC *Journal:*

In regard to the future of Cobourg town hall, I do not feel at the present time, at least, we have anything to fear re the demolition of this beautiful structure, the historical value of which should be firmly impressed, particularly upon our younger generations.

We certainly appreciate your personal interest as well as the interest members of the Royal Architectural Institute have displayed.

R. Robin Mallory, Secretary Manager, Cobourg Chamber of Commerce

Editor, RAIC *Journal:*

Much has been spoken and written about the deterioration of architectural practice, and the tendency of some architects to approach their problems from the standpoint of available materials rather than making the chief objective one of expression, which includes a perfect combination of appearance, workability and the best use of materials.

Architects should advance upon their problems either by reason or feel. It is essential that the practical as well as the aesthetic training of an architect is obvious in the resulting solution to any problem, but if the result is merely practical and functional, without having a satisfying expression, or if it is excellent from an aesthetic standpoint without being practical, then the architect has failed to justify himself.

How extremely important it is for architects to travel as much as possible and study the work of other architects throughout the world, *not* for the purpose of copying good work, or cribbing a solution to a problem, but rather to sense the scale, dignity, repose and character of deserving architectural achievements.

F. Hilton Wilkes, Toronto

Editor, RAIC *Journal:*

In the November issue of *Architecture* the President of the PQAA appeals to the new members to honour the Code of Ethics, especially, since "during the past several years regrettably there has developed the all too obvious practise of trying to interpret the Code of Ethics."

This is a very serious problem. Reduced fees usually mean reduced services, resulting in bad design and reduced appreciation of the works of architects by the public—by the clients. It is important that something will be done about it. Appealing to the honesty of the members is fine, but not enough. Very often a good architect is a poor businessman and thus unable to secure the proper contacts which would lead to good contracts. And besides, an architect should spend most of his time to create, not to social life resulting in "good connections". At the moment there are hardly any possibilities for the less business-minded members to get known and to obtain contracts where they really could show their talent and, of course, keep their fees. Even trying hard to be honest and honour the Code of Ethics, they have to make their living in the profession, and no wonder, if some sinful steps will be taken, which will lead to no professional nor material satisfaction, but which, however, will give some kind of income.

The RAIC and the Provincial Associations could and should do their best to cure this situation. By convincing the proper authorities to award the contracts for all more important municipal and private projects through architectural competitions, not only the less "connected" architects will have a chance to give their share to the progress of the profession, but also the general standard of our architecture will be raised. As well, the persons who will see the exhibitions of the competion works will learn to understand good architecture.

This suggestion is not new. In the Scandinavian countries almost all public works and works of bigger private enterprises (city halls, post offices, hospitals, schools, banks, sport and community centres, shopping centres, office buildings, housing groups, etc.) are awarded through architectural competitions. And whoever is familiar with the Scandinavian architecture will agree that the results are not bad—on the contrary.

Harry Kivilo, Montreal

The Guggenheim

So yesterday in a drizzling rainstorm I paid a visit to the Guggenheim. Because of heavy gray fog, the building was not at its best, but was nevertheless an impressive example of modern architecture. Inside the visitor is taken to the top floor by elevator and from there walks comfortably down wide circular galleries, which spiral from the top floor to the bottom. The floor is on a gentle incline. It is not too good for the woman who does her museum visiting in stiletto heels, and is on an incline before she starts, but is easy walking in low or Cuban heels.

Zoe Bieler in the MONTREAL *Star*

The Guggenheim gift to New York
Is basically nothing but torque,
And the ladies who view
Frank's last turn of the screw
Would rather slide down it than walk.

P.C.

NIDC Award Program Re-organized

The National Industrial Design Council announces a complete re-organization of its Design Award program. Henceforth awards will be granted every three years instead of annually and only products of wholly Canadian design and manufacture will be eligible. The next awards will be granted in the fall of 1961.

The eligible categories are being extended to include some architectural components and some engineering equipment in addition to the original categories of personal, household, and office and institutional furniture and equipment. Date of design and manufacture will no longer be considered a factor in the judging. Another important change is that a distinction will be made between craft-based articles for custom production and industrial designs for mass production. The NIDC Design Index will be replaced by an Index of Designs of Merit.

1960 Monograph Prizes

The American Academy of Arts and Sciences announces that three monograph prizes of $1,000 each will be awarded in 1960 for unpublished monographs in the fields of the humanities, social sciences and physical and biological sciences. Final date for receipt of manuscripts is October 1, 1960. Further information may be obtained by sending a stamped, self-addressed envelope to the Committee on Monograph Prizes, American Academy of Arts and Sciences, 280 Newton Street, Brookline Station, Boston 46.



***Sketchbook:** Bill Spragg, recently retired RIBA Secretary, sketched at a RIBA dinner party by the President, Basil Spence, and given to Forsey Page on that occasion.*

BOOK REVIEWS

DBR PUBLICATION

The National Research Council has issued a report recently under the title "Insulation in Northern Design", by R. E. Platts. High fuel requirements and transportation costs are cited as factors of primary importance in planning buildings for northern areas. Ventilation, condensation, breakage-resistance and other circumstances also require consideration. This report presents information developed for the Division and provides data on questions such as the economic thickness of insulation and the relative effectiveness of different methods of installation. An example given as demonstrating the scale of variation concerns a hut of 540 sq ft floor area. Value of fuel consumed in one winter was: No insulation – $1,635; 2″ mineral wool – $710; 4″ mineral wool – $570. Order under NRC No 5280 from the Publications Section, Division of Building Research, NRC, Ottawa. (25¢ per copy)

TIMBER CONSTRUCTION MANUAL: Published by the Canadian Institute of Timber Construction.

The Timber Construction Manual is a very comprehensive collection of charts, tables, and data on timber design. This manual will be to Canadian timber construction what the American Institute of Steel Construction Manual is to the steel industry. Information which was previously available to engineers and architects only in a number of publications is now contained in this single book. Wherever applicable the data comply with the Canadian Standards Association, Specification 086: Code of Recommended Practice for Engineering Design in Timber. Throughout the book separate information is given for sawn timber and for glued laminated timber.

The following is a brief outline of the contents. The first part deals with the properties of the standard sections and the working stresses for the various species of wood. Floor, wind, and snow loading requirements of the National Building Code (1953) are given in a graphical form with possible critical combinations of these loads suggested. The largest portion of this book is devoted to design data. Shear-bending charts and deflection charts are supplied for designing beams, joists, purlins, and decking. Columns can be designed by means of a series of capacity charts. Designs af arches, trusses, and highway bridges are each outlined. Common patented structural members, such as GP frames and arches, and HB systems, are also discussed. Another section describes the detailing practices and the standard symbols generally used in the industry. A number of typical connexion details are shown for columns, beams, and purlins. Design and detailing information for the various timber fasteners is also included.

There is considerable information of value to a designer in the section called "Timber Technology". A partial list of the areas covered includes lumber grading and selection, dimensional changes in wood, thermal conductivity, preservative treatment by pressure processes, and reference publications.

The complete C.S.A. Code 086 (1959) has been reprinted here for easy reference. The manual also includes notes on specification writing and the Appearance Grade Specifications C.S.A. Spec. 0122. Common logarithms, trigonometric functions, material weights, and typical beam diagrams and formulas have been reproduced to complete the handbook.

The manual is well organized and quite complete. The examples and descriptions accompanying many of the charts are most helpful. This book is a very valuable tool for designers, detailers, and estimators of timber construction.

Kenneth A. Selby, Toronto

SCHOOLHOUSE: edited by Walter McQuade, published by Simon & Schuster. $10.00 (USA)

I have just read an absorbing book as interesting in its text as it is beautiful in its every page. The jacket states that it was produced by the Joint School Project—Aluminum Company of America, Eggers & Higgins and Walter McQuade. A score of consultants and advisers are listed in the title page.

While the book is described as "a primer about the American school plant produced in the public service", it is a valuable book of 270 pages in the library of every architect interested in school building. I would recommend it to architects who are unlikely ever to do a school for the sheer pleasure of possessing it.

Eric Arthur, Toronto

THE INDUSTRY

Cement Booklet

"The Cement for Industry" is the title of a new illustrated booklet setting out solutions for special application problems where utilization of the multi-purpose Aluminous cement, "CIMENT FONDU", is indicated. Corrosin-resistance, quick-hardening, insulation and refractory-grade heat resistance are cited as qualities of particular interest in the design of structures and equipment. Copies are available free, on request, from Ciment Fondu Lafarge (Canada) Limited, 1405 Peel Street, Montreal, P.Q.

◇

Brochure on Moisture Problems

Application illustrations and data are features of a recently published eight-page brochure from W. R. Meadows of Canada Ltd, titled "Eliminate Moisture Problems with SEALTITE Premolded Membrane". There is considerable information about moisture migration problems and vapour barriers. A number of other booklets, leaflets and data sheets available to architects and engineers are listed. Copies may be obtained by writing the company at 96 Vine Avenue, Toronto 9.

Insulation Samples

Dow Chemical of Canada Limited, Sarnia, Ontario, is undertaking an extensive "sampling" program on the rigid insulation "STYROSPAN" The specimens to be distributed are 2" blocks of the expanded polystyrene foam materials, with specifications and comparative effective values tabled in the kit-covers.

◇

Courtaulds In Plastics

A name well-known in the field of textiles is now projected into that of building materials. Courtaulds Plastics Canada Limited has been established, with transfer of the operation of Guardian Chemical and Equipment Company Ltd, Montreal, to Cornwall, Ont. N. I. Battista is Chairman of the Board, and Dr J. G. Davoud, President, of the new company.

With this development Courtaulds undertakes production and marketing of a foamed polystyrene, tradenamed "STYROLITE". The plastic closed cell material provides a rigid insulation, in standard and self-extinguishing types. Suggested uses include perimeter insulation in walls, floors, ceilings, doors and panels in a variety of temperature-controlling structure; and as flotation material. Address enquiries for further information to the Company at Cornwall, Ont.

◇

Large Savings Claimed

A new development in distribution systems for air conditioning, by cellular steel floor components, has been announced recently. It is said to permit design and construction of a twenty-storey building within the overall height of a conventional nineteen-storey structure. The manufacturer claims that a combination of sub-floor cellular raceways with a "seasonal changeover" terminal box control makes it possible to provide capacity for cooling without adding to the 6" to 16" space between floor and ceiling normally required to house the hot and cold air branch ducts. It is claimed that a saving of 5% in initial construction cost; 4% to 11% in BTU requirements; and 30% in annual power costs for heating and air conditioning can be achieved. Detailed information is available from Robertson-Irwin Ltd, Hamilton, Ont., or from branches or agents.

◇

1960 Bilco Catalogue

"Doors for Special Services" is the title of the 1960 BILCO catalogue issued recently. It illustrates and describes roof scuttles, smoke hatches, double-leaf sidewalk elevator doors and other units. Canadian prices are shown. The booklet carries AIA File No 14-N, 14-A-2, 14-B-9, and copies are available from J. J. Thomas, Box 125, Brantford, Ont., where most standard-size units are stocked.

◇

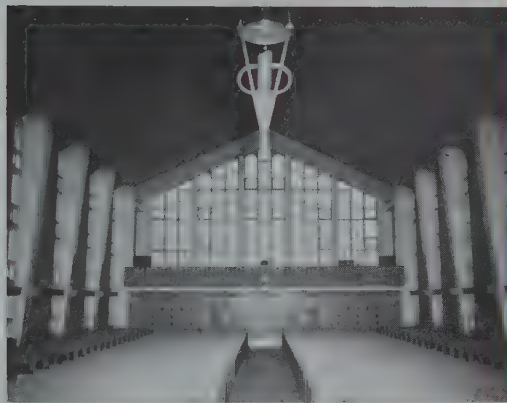
Acrylic-latex Exterior Paint

An acrylic-latex exterior paint has been announced recently by C-I-L. The product is said to cut brushing time by 50% and to be highly blister-proof. According to the manufacturer, the paint dries in less than one hour and is unaffected by rain after twenty minutes. Quick-drying permits same-day application of second coat, and "blistering" is said to be inhibited by the fact that the film resulting from proper application possesses capacity to "breathe". The formulation is described as such that use on masonry and asbestos-siding can be recommended, and a low-sheen finish comparable to that on wood is obtained on these materials. Further information may be obtained by writing Canadian Industries Ltd, P.O. Box 10, Montreal, P.Q.



ST. DONAT CATHOLIC CHURCH
Montreal, Quebec, Canada







PRATT & LAMBERT

THERE'S A REASON WHY...

Architects:
Robillard, Jette, Baudouin
General Contractor:
Raymond Matte Ltee.
Painting Contractor:
Dutil & Fils Ltee.
P & L Products Used:
New Lyt-all Flowing Flat
38" Pale Trim Varnish
Vitralite Enamel

Pratt & Lambert products were used on the St. Donat Catholic Church in Montreal. They wanted subtle beauty in long-lasting, rugged-wearing products. Naturally St. Donat was color styled throughout with famous job-tested P & L products.

Professional-level color planning service is available on request. Your experienced Pratt & Lambert representative will suggest distinctive color plans and recommend authoritative painting specifications without obligation. Please write: Pratt & Lambert Architectural Service Department, 254 Courtwright St., Fort Erie, Ont., Canada.

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the paint of professionals for over a century

PRATT & LAMBERT-INC.
FORT ERIE, ONTARIO

Offer Range of Colors On Tile and Board

A new line of colored asbestos-cement building materials tradenamed TURNALL "Colourglaze" was announced recently by Atlas Asbestos Co Ltd. Factory applied to ¼" Trafford Tile or to Densite Board (to ½"), the finish is described as resistant to corrosive atmospheres and to damage by rough handling. Fifteen standard colors, with other shades to special order, are said to provide new scope for design effects in commercial and industrial roofings and claddings. For further information, write to Head Office, 5600 Hochelaga St, Montreal, or to branches at Montreal, Toronto, Winnipeg, Edmonton, or Vancouver.

◇

Acrylic Emulsions In Exterior Paints

The results of a six-year study of applications and exposure tests of exterior paints made with Rhoplex AC-33, 100% acrylic resin emulsion, are set out in a 54-page book recently announced by Rohm & Haas. The test program covered both commercial jobs and data on test panels, with materials including wood, asbestos-cement shingles, stucco, concrete blocks and cement. Several types of structure are shown in the 24 photographs reproduced, and the polymer in the emulsion is described as tough, adherent, flexible, color retentive, and resistant to ultra-violet light, alkalies and moisture. A copy of the book may be obtained without cost by writing Rohm & Haas Company of Canada Limited, 2 Manse Rd, West Hill, Ont.

◇

Refrigeration and Air-moving

A new line of refrigeration machines, with 400-800 ton operating capacity and said to be quiet and vibrationless, has been announced by American Standard Products (Canada) Ltd. Designated Series 235, the two-stage "TONRAC" units also are adaptable to heat pump applications. The machines are powered by water-cooled hermetic motors, available for operation with 208-6600 v current, at 3600 rpm. Capacity is varied by adjustable inlet guide vanes; load control is automatic. This company also offers a new series of catalogues describing and illustrating the wide range of sizes, characteristics and applications of Canadian Sirocco centrifugal air-moving units. Request by letter to the company at 1201 Dupont Street, Toronto 4, Ontario.

Masonry Check Points

A concise, well-developed guide to proper checking of critical points in masonry construction has been published recently by Gypsum, Lime and Alabastine Ltd. Information is included on specification of materials, methods for handling and storage, judgment of workmanship, and other factors. Reproductions of photographs and drawings highlight significant aspects of problems encountered frequently. Address requests for copies to the Company at Box 98, Station "F", Toronto, Ont.

◇

Wood Modular Furniture

Development of functional workplaces for home or office is facilitated by information in a recently-published catalogue. Illustrations and data are shown for a new wood modular line which includes desk pedestals and tops, cupboards, credenzas and other standard units. Write Office Specialty Manufacturing Company, Newmarket, Ont.

◇

Form Wood Development Council

A broad and intensive information and promotion program for lumber and wood materials has been projected by a newly-formed organization—Canadian Wood Development Council. Agreement to incorporate this body was reached in Toronto (on January 15) by representatives of fourteen regional Associations with some three thousand member companies.

Advertising in consumer and trade publications is scheduled, along with materials for direct mail and for sales promotion, and enlarged technical field activity. Further information may be obtained from Council headquarters, 27 Goulbourn Ave, Ottawa 2, Ont.

◇

Gold Anodized Aluminum

The scope of possible design is immediately broadened when the designer chooses a material that is easily fabricated and offers a great variety of finishes. According to the Schlage Lock Company of Canada Ltd, such a material is utilized in their locksets and escutcheons of gold anodized aluminum. Styles now available include: Barrington, Darien, Riviera, Imperial, Regent, Savoy, Ming and Georgian. The finishing process is referred to as "pigmented coating" and it is stated that the ASTM ultraviolet test has been passed successfully by samples of the Schlage gold-finish line. Further information may be obtained by writing the company at Vancouver, B.C.

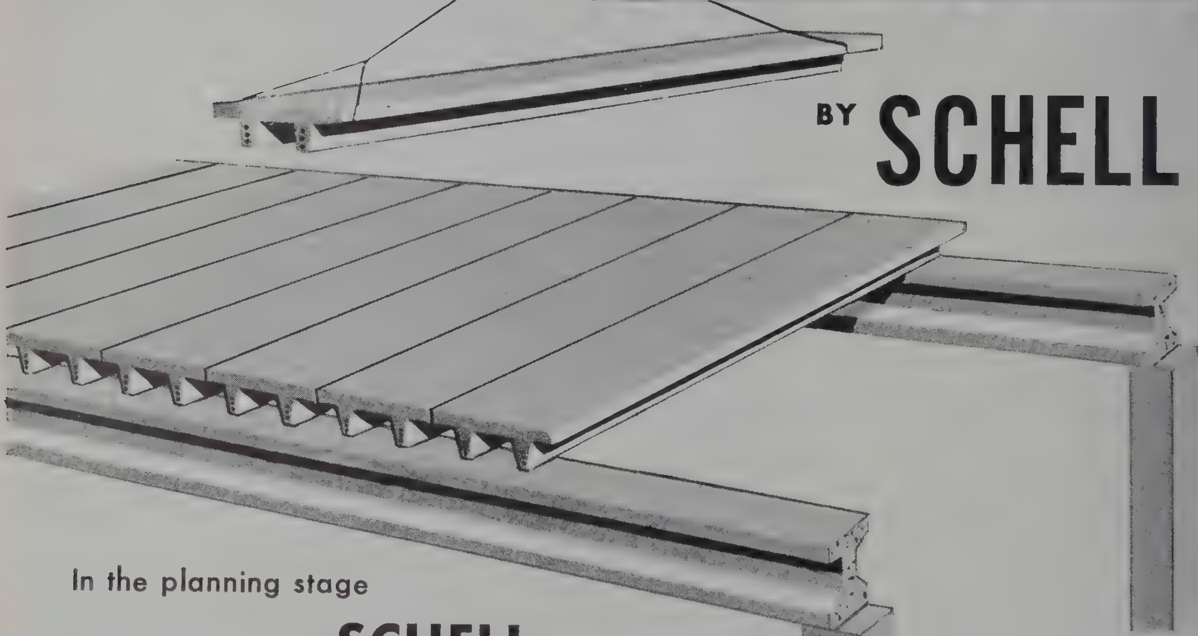




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A CONCRETE ANSWER

BY SCHELL



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(beam and slab in one unit)

provide the designer with the means of constructing economical precast roofs and floors for a wide variety of spans and loads.

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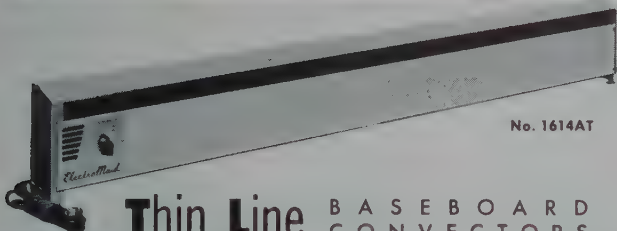
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DT-1

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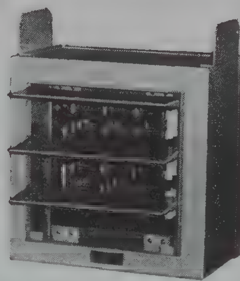
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Propeller type shown

Capacities from 1500W up to 60000W. Any voltage up to 575 Volts, as specified. Propeller and Blower type Unit Heaters for various industrial applications.

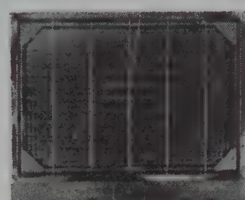
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ZINC roof beautifies Dorval Church



The pure zinc roof recently laid on the original chapel and the new addition to St. Mark's Church, Dorval, Quebec, may be a *Canadian first*.

In Europe, zinc has long been recognized as one of the finest permanent-type roofing materials. It was used extensively on reconstruction programs following World War II. **Not only does zinc combine durability with economy but natural atmospheric oxidation quickly gives it a coating which mellows the appearance of the metal and gives it a most pleasing, soft silvery-grey tone.** This coating adheres very strongly to the underlying metal. It is very resistant to atmospheric corrosion and will not stain adjacent masonry or wood-work like the oxidation products of many other metals.

Long life and the ability of the metal to harmonize so fittingly with the different materials in both the new and old parts of the building were the major factors influencing the use of zinc at St. Mark's. These advantages combined with economy (zinc is initially less costly than any other permanent type roof), the fire resistance of a metal and excellent corrosion resistance, gave zinc first place.

The next time you design a building that deserves a really good permanent-type roof, use zinc and combine long life, beauty and economy. For further information contact our Sales Development Division.



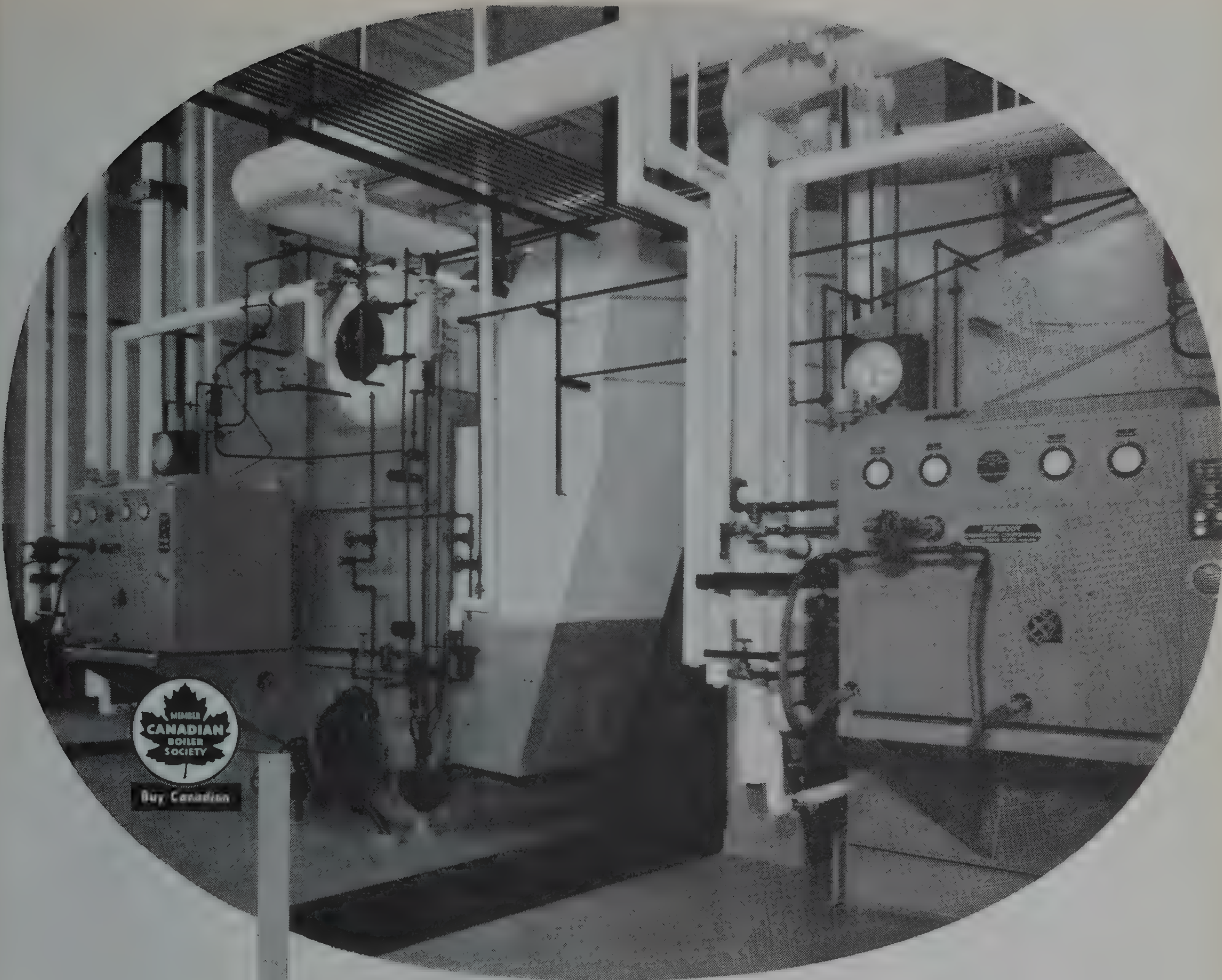
St. Mark's Church, Dorval, Quebec. Inset shows portion of the original 65-year old chapel recently re-roofed with zinc. Architects — Woolven and Devitt.

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The compact Dominion Bridge package water tube boilers, shown above, are installed on the top floor of the T. Eaton Co. Ltd's. Montreal store where they are in operation the year 'round. Steam produced, heats the buildings and is used in the air conditioning system.

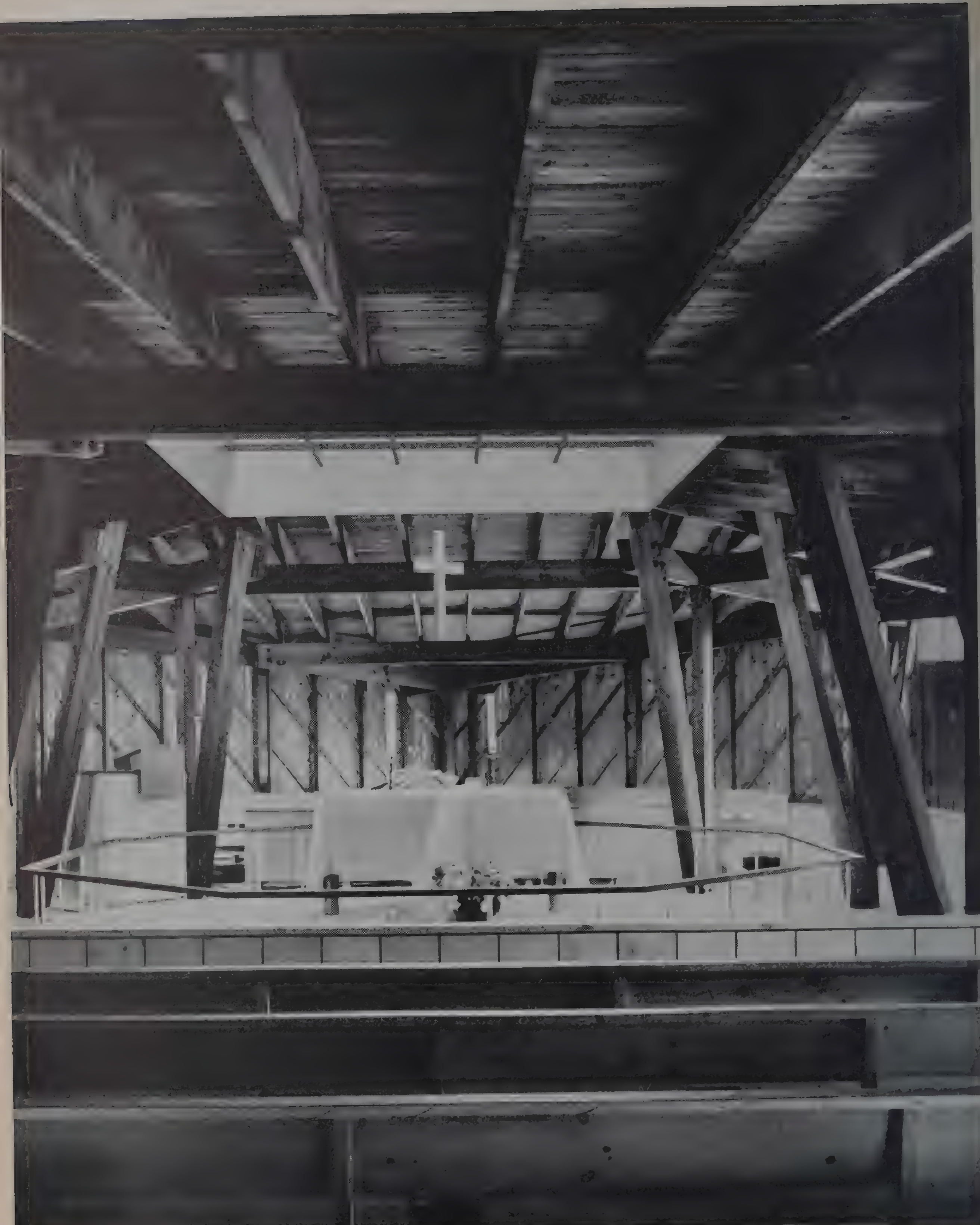
These two oil-fired model PD boilers each have a capacity of 30,000 pph. with a design pressure of 250 psig. Consulting engineers were Wiggs, Walford, Frost and Lindsay of Montreal.

Dominion Bridge package water tube boilers are all-Canadian in design and manufacture. They are supplied with firing equipment and are ready to be connected at site to electrical, oil, water and steam lines. Ten standard sizes are available with capacities ranging from 10,000 pph. upwards. For complete information write for Catalogue 23DD-125.

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In this Maritime chapel, two design problems are solved by wood's adaptability—the need for a structure allowing every worshipper to share intimately in the service—the desire to evoke something of the character of a stout wood ship. Exposed wood framing and siding suggest a ship's structural honesty—fenestration from above and at floor level creates a luminous atmosphere for devotion.

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In the face of the powerful forces of Nature . . . of wind and water, sand and sun — the architect goes almost instinctively to *wood* as his basic structural medium. No more compatible and versatile material exists when the design problem requires a harmonious interaction of site to structure, structure to man.

Ever adaptable, ever flexible, wood lends itself to new expressions — from the most profound religious aspirations of man to the more down-to-earth keeping of rain, sun, and sand in their places. Wood's durability makes possible new designs that are practical — structures that not only withstand the raw force of the elements but are actually mellowed and enriched in the process. For more information on designing with wood, write to:

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cwdc

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How to have your beach house *on* the sand, but not *in* it—set the house on wood piles several feet above the dunes, provide generous walkways of separated wood strips to filter out tracked-in sand. Note generous frame overhang, vital for sun protection.





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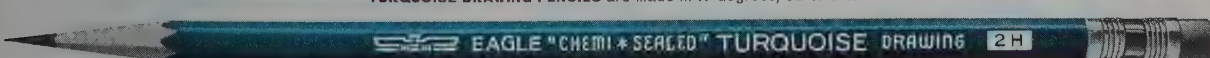
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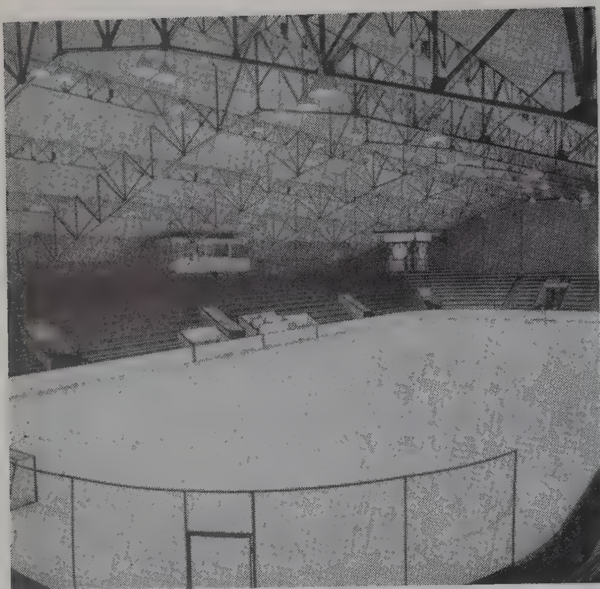
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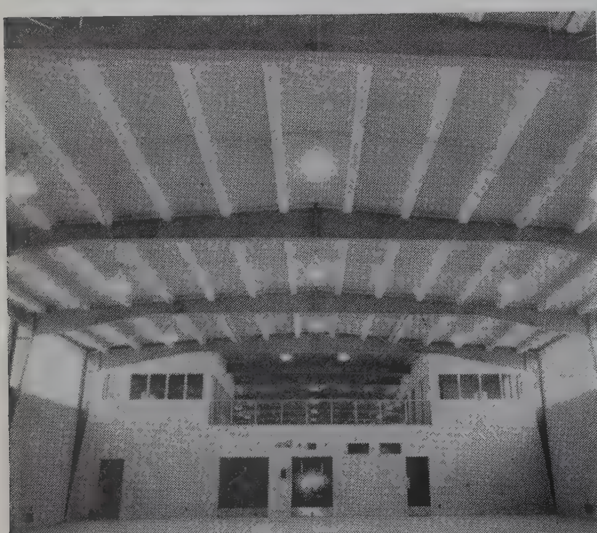
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WANT A FREE SAMPLE? Write for a TURQUOISE pencil or lead, in the degree you'd like to test on your favourite drafting material. Eagle Pencil Company of Canada Ltd., 217 Bay St., Toronto 1.



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Petit Séminaire, Ottawa.
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These chalkboards are made of highest quality materials to insure long life. Made in refreshing green "Litesite" and "Jet Black" both are permanent and non-fading. They're available in panels 3½ and 4 feet wide and 6 and 8 feet long.

When quality counts, consider Sterling or Hyloplate Litesite Chalkboards.

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This recent sculpture by David Wynne, F.R.S.A., for Taylor Woodrow has a very real significance for all who have new building in mind.

It was created primarily to symbolize the spirit of teamwork that pervades all levels of the Taylor Woodrow organization, the enthusiasm and drive that so often completes contracts well ahead of meticulously planned and therefore very tight schedules. But it also symbolizes a new dynamic in building — that of bringing Taylor Woodrow into full collaboration with your consultants right from the start. This we call Tayplanning, which brings to your new project a degree of efficiency and speed obtainable in no other way.

TAYPLANNING saves time — a great deal of time. Design problems — which today are often construction problems too — can be studied by Taylor Woodrow specialists in the light of their world-wide experience of new and advanced construction techniques. The whole project is streamlined into a single, perfectly co-ordinated master-plan — to meet the standards all building owners require — highest quality construction, economy of design and execution and completion in the shortest possible time.

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For wet walls Medusa White Tile Grout Cement has been unequalled for 25 years. For dry wall construction use new Medusa Dry Wall Tile Grout Cement that slows down excessive suction to the tile and gives a perfect bond in dry wall work.

Only Medusa's two grout cements give you beautiful white, hard joints, free from shrinkage cracks in both wet and dry wall construction everytime.

Over Sixty-Five Years of Concrete Progress

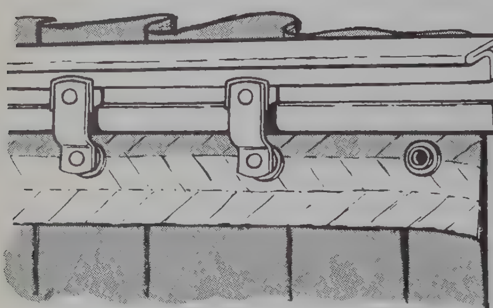
MEDUSA WHITE TILE GROUT CEMENTS

MEDUSA PRODUCTS COMPANY OF CANADA, LTD., PARIS, ONTARIO, CANADA

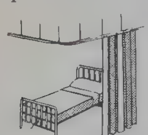
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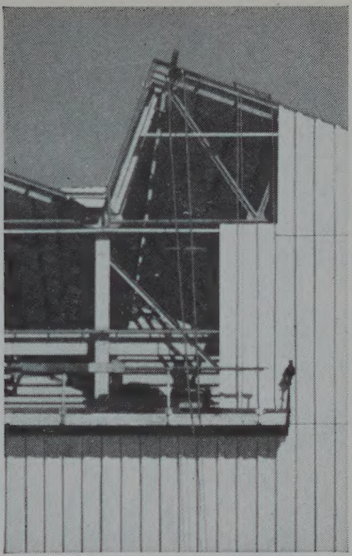
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